CITY OF GLOUCESTER, MA

SEWER TASK FORCE REPORT

Submitted to:

MAYOR JOHN BELL

DRAFT

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Table of Contents

1. Background

2. Daylor Study & Health Dept. Data Review

3. Overview of Fiscal Impacts of Public Sewers in Gloucester

4. Sewer Task Force Recommendations
    - A. Develop a Citywide Wastewater Facilities Plan
    - B. Eliminate the City's share of sewer extension costs
    - C. All private "existing" sewer extension projects should be continued as "public" projects, and managed by the City
    - D. Proposed Future Priority Public Sewer Projects
        1. Walker Creek Drainage Area
        2. Upper Little River Drainage Area
        3. Jones River Drainage Area
        4. Other projects on case-by-case basis
    - E. Proposed moratorium on further privately constructed sewer projects
    - F. Proposed policy for management of Grinder Pumps
    - G. Proposed moratorium on STEP System extensions

5. Policy on Costs of all Future Public Sewer Projects

6. Appendices 1-18

BACKGROUND

In October 2004, Mayor John Bell established a Sewer Task Force comprised of department managers and staff of his administration, and by invitation Councilor Abdullah Khambaty, to develop strategies to assist those neighborhoods in Gloucester which do not have public sewers and which due to high septic system failures also continue to face severe challenges regarding their wastewater options. The Mayor charged this task force with the mission to "develop long-term wastewater options and strategies" for those neighborhoods of the city under pressure to comply with the State's Title 5 wastewater regulations.

DAYLOR STUDY & HEALTH DEPT. DATA REVIEW

The Sewer Task Force, hereinafter referred to as the "STF", began meeting in November 2004, and during the first few meetings undertook an analysis of data maintained by the city's Health Department on septic system status predominantly throughout West Gloucester[1], but inclusive of a few pockets of similar conditions in other areas of the city as well. The STF reviewed state and local regulations, the history of challenges the city and homeowners have faced when searching for solutions to similar wastewater problems, and other important policy tools that are instructive on management of wastewater at the local level.

The STF also reviewed the "Daylor Study" - a land use and wastewater plan for a region of West Gloucester that is one of the few State-designated "Areas of Critical Environmental Concern" (ACEC). This study area lies north of Route 128, along the Annisquam River, the Wingaersheek area, and points westward towards the Great Marsh in the Town of Essex. Many of the recommendations of this study completed in 2001 are not mandates but policy options and guidance on whether and where the city should consider installing sewers or other means of wastewater management, if at all, in this ACEC and adjacent areas. The STF urges the City to continue to pursue the recommendations set forth in the Daylor Study in a proactive manner.[2] Moreover, the wastewater solutions we propose

[1] The Gloucester Health Department data on West Gloucester has been collected and maintained largely as a result of the City Wastewater Management Plan which was developed with the Mass. Dept. Of Environmental Protection as an outcome of the North Gloucester Sewer Consent Decree.

[2] On February 4, 2003, the Gloucester City Council adopted the Daylor Report and Overlay Plan. The effect of the adoption of this plan is to adopt an overlay map that creates a "sewer service area" which primarily serves to restrict sewer extensions in outlying areas of Ward 5-2 for

herein should be considered as our attempt to "harness [sewer projects] as a force for positive change in West Gloucester."[3]

Although Daylor provides an analysis of the potential growth impacts, cost and feasibility of various wastewater options, what the report recognizes as paramount is that any governmental actions be taken consistent with ' the best interest of the environment' in the ACEC region.[4] It is this same standard by which we present these recommendations for regulatory change and public sewer projects.

The effort of this task force was not to duplicate The Daylor report. Rather, the STF understood its task as being one of coming to terms with this report and its recommendations, and then determining how best to implement these findings given very practical issues of environmental urgency, affordability, timeliness and project "readiness." In addition, the STF recognizes that there remain numerous regulatory and administrative issues regarding both public and private construction of sewer projects .

In sorting through the myriad of data and other information, much has been documented and learned. For the most part, geologically speaking, Gloucester has significant areas of regulated wetlands and shallow soils due to ledge. Thus, wastewater management in Gloucester is costly, whether the solutions are public or private, individual, or area wide. Many households have been waiting for the City Health Department or state regulatory agencies to address what is largely considered to be neighborhood and/or area-wide concerns regarding wastewater management.

Priority drainage areas, by definition, are areas where there has been historic water pollution problems as a result of substandard and failing septic systems. The Gloucester Board of Health has identified priority drainage areas that are included in the Wastewater Management Plan that was adopted by the city Health Department, Gloucester City Council and the Massachusetts Deptartment of Environmental Protection in June, 1996. This plan required the city to abate all septic system related pollution from these environmentally sensitive resource areas. All septic systems installed prior to 1996 will likely need to be replaced as they were not designed, installed or maintained as a permanent wastewater

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environmental reasons.

[3] Daylor Report, page 1-1.

[4] Daylor Report, page 1-6

solution, and in large measure do not comply with the design requirements under the State's amended Title V regulations.

The City Health Department's wastewater management plan requires that the Health Department manage all on-site systems within the City, with special focus on seven priority drainage areas: Walker Creek, Jones River, Little River, Rust Island, Pearce Island, Magnolia Beach, and Fresh Water Cove. As the local encorcement arm for Title V compliance, the Health Department must insist on compliance and, when necessary, seek remediation of septic system pollution throughout the city, with particular interest in these environmentally sensitive drainage areas.

The plan requires all systems have a basic function check at a minimum of every three and one-half years. Since 1996, the Health Department has created a data base that maintains an inventory on the status of all septic systems and their functionality. Homeowners must upgrade their septic system to meet the new Title V standards. A determination by the Health Department is made regarding system status, and recommendations are provided to the homeowner regarding repair and upgrade options. If the Health Department determines that a septic system has failed, the system must be upgraded according to the standards outlined in Title 5. Such an upgrade must occur within two years of notice of failure by the Department. If an upgrade is not possible, then the homeowner must connect to a public sewer if one is available. Only when there is no sewer available in the street can the homeowner utilize a tight tank on site under Title 5.

However, the Daylor Study made it's recommendations for a permanent wastewater solution for the ACEC area based on the following five factors:

1. *The location and distribution of known and suspected failing on-site wastewater systems;*
2. *The location and extent of water quality problems that are being caused by failing wastewater systems;*
3. *The potential for and the disadvantages of providing various types of wastewater treatment to each neighborhood;*
4. *The potential of each of the wastewater treatment solutions for contributing to undesirable secondary growth impacts, as well as the potential to facilitate desired development; and*
5. *Community input and preferences identified through the planning process.*[5]

[5] Daylor Report, pages 1-3, 1-4.

Based on the above factors, the wastewater management systems considered were:

- *Public sewer service (gravity and/or pressure),*
- *Neighborhood septic systems (utilizing a range of technologies), and*
- *On-site septic systems (also using a range of technologies)*

The Daylor report shows that affected area residents strongly disfavor the community or neighborhood on-site systems due to the legal restrictions and high cost of such technologies, and further shows that many individual on-site systems are simply not feasible due to inadequate soils and exhorbitant repair costs.

Based upon the Daylor findings, the most feasible "solution" for large parts of the ACEC area would be construction of public sewers. Like Daylor, the STF also recognizes and concludes that when looked at in the light most favorable to the environment and as a least cost alternative, that limited public sewer construction in various critical areas of Ward 5-2 is the favored option. Moreover, the STF was sensitive to the environmental and cost limitations of this area, and recommends that any solution have as its primary assumption that any homeowner should not, if at all possible, "pay twice" by constructing or upgrading an on-site system only to be told a short time later by local or state regulators that they will be sewered, and thereby incur an additional betterment charge.

Fiscal Impacts

Under the current City of Gloucester Sewer Ordinance, Code of Ordinances Chapter 23, which is based on state laws governing assessments of sewer betterments, the city assesses property owners who abut new publicly constructed sewers a unit-based betterment charge of seventy-five percent of the total cost of the sewer project. The city pays the remaining twenty-five percent of the project cost from the city's General Fund - supported in large part by the city's real property tax rate.[6]

All tolled, since 1990, publicly constructed sewer projects have approximately cost $56 million. Of this amount, $14 million has been assessed to the general tax payers of the city, and the remaining $42 million assessed to the recipients of a sewer project. At least two-thirds of this cost is related to the North Gloucester Sewer Construction Project, a project that was mandated by consent decree

[6] The twenty-five percent city share is capped at $6,000 per unit.

between the City and the Mass. Dept. Of Environmental Protection. Future costs to the City for projects such as the Little River/Essex Avenue Project and other planned public sewer projects is projected to be in excess of $16 million.

Sewering the remaining unsewered homes in the city would be extraordinarily expensive under the current ordinance given that there are approximately 3,200 on-site wastewater systems in the city. The current annual cost to the City's General Fund stands between $1.2 and $1.3 million (please see Appendix 10, page 5). The city's fiscal exposure under the existing ordinance would require ~~the~~ the taxpayers of Gloucester to incur additional potential debt liability of roughly $40 million[7] if the remaining 3,200 homes in the city were sewered. These cost projections reflect timing issues arising because debt service, primarily interest, is due before betterments are issued and a revenue stream is created for any given project. They do not, however, reflect timing issues that may arise if actual betterment collections fall behind betterment debt service due dates. Nor does it reflect shortfalls in revenue that may occur because of abatements after project completion, but after project financing, unless those abatements were known and financed by increasing the General Fund's share of the debt service.

City sewer projects currently funded by betterments are as follows:

1. North Gloucester Phase 1
2. North Gloucester Phase 2
3. Kent Circle
4. Bond, Eastern Avenue, Stage Fort, Elizabeth
5. North Gloucester Phase 3
6. North Gloucester Phases 4 & 5
7. Marble, Pond, Eastern Avenue, Witham
8. Barker, Gurden
9. Adams
10. Calder, Sunset, Hillier
11. Hillside, Gilbert
12. Little River/Essex Avenue (not yet bettered)
13. Western Avenue (from Blynman Canal to Kent Circle/Essex Avenue - not yet bettered)

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[7] This is an approximated calculation: ((3,200 homes X $6,000 per home) X 2 for debt service interest))

STF RECOMMENDATIONS:

For several months, the STF has studied numerous policy and regulatory issues relating to further expansion of the City's sewer infrastructure. The STF finds that in order for the City to move forward to address outstanding wastewater needs of various city neighborhoods, we must propose adoption of the following policy recommendations and where required, action by City Council to amend our Code of Ordinances.

A. Citywide Wastewater Facilities Plan

The STF recommends that a Citywide Wastewater Facilities Plan be developed. Such a plan should be approved and funded by the City Council. The purpose of this plan will be to evaluate the City's ability to transport and treat wastewater flows under existing and future build-out conditions. The Plan will identify existing system deficiencies, prioritize necessary system improvements and serve as a guide for identifying areas for future extensions. The facility plan shall include a description of existing and future conditions and the development and initial screening of alternatives for sewering. Relevant engineering data supporting the final alternatives and environmental information document (EID) shall also be prepared. The purpose of the EID is to determine if construction of the project as planned is likely to negatively impact sensitive environmental resources. If negative impacts to sensitive environmental resources are identified by the plan, the City shall develop and implement mitigation measures as the project moves into the design and construction phases.

B. CITY FUNDING OF SEWER EXTENSIONS

As previously stated, the requirement of public funding for sewer extensions would result in multimillion dollar obligations to the City if one or all of the proposed sewer projects presented in this report are adopted by the City Council. The STF believes that while this funding requirement may have been appropriate to manage previous projects, such a continuing obligation is fiscally untenable for the city given immediate and extraordinary capital needs and other mandated expenses. Moreover, we believe this fiscal obligation to subsidize future public sewer projects has become an inhibitor to further sewering in areas where sewers appear to be the best and perhaps only option for addressing enrvironmental and neighborhood interests.

What the city can and should do as part of any future sewer project is to pay for any cost associated with design changes that may be required as in the best interest of the city. As well, the city should provide technical assistance and project oversight to ensure immediate and ongoing compliance with project requirements. In recent years, private efforts to coordinate and manage major sewer service projects in several city neighborhoods have either failed to materialize or have proven to be extremely challenging, absent the project management and technical skills of the City's administration.

Yet given the fiscal magnitude of the Combined Sewer Overflow (CSO) project and the Capital Improvements Advisory Board recommendations for capital expenditures that this city must address over the next ten years, it is very unlikely and is perhaps setting false expectations that this city will have within this timeframe the resources available to commit to sharing in the cost of additional public sewer projects. Nevertheless, the Task Force recognizes the need for continuing city involvement in assisting neighborhoods that have yet to resolve their wastewater needs. We also suggest that the lack of city funds to support further sewer projects should not alone be the determining factor as to whether or not public sewer projects be considered and prosecuted.

The Task Force recommends that our city ordinance be changed to reflect the fiscal reality that the City cannot afford to fund additional sewer projects or connections in the future. This ordinance change would not affect public sewer projects already approved and constructed.

C. EXISTING PROJECTS

Prior to enacting the moratorium on private sewer construction on March 24, 2005, the City engineering department had approved a number of private sewer construction permit applications under the existing regulations that had not started construction. The STF recommends that because these projects were proposed and processed (partially in some cases) in good faith with the City at the time the moratorium was enacted, these projects should be exempted from the current moratorium in effect and should be allowed to continue. However, if these projects do not move forward prior to the Commonwealth's project permit expiring 5 years from the date of issuance, such projects would be considered City projects, and would be pursued according to the hereinafter cited "priority criteria for city projects". Such projects would also be considered in light of the proposed citywide wastewater facility plan. (See Appendix #7 for a list of named "existing" projects). The city should build into the cost associated with these existing projects what it

considers to be a reasonable contract management fee or premium to provide the technical assistance necessary to complete these projects.

D. FUTURE PUBLIC SEWER PROJECTS

In our evaluation and prioritizing of the various neighborhood drainage areas which Daylor identifies as in the greatest need for wastewater solutions, the STF further refine Daylor's study criteria according to the following criteria as ranked below:

i. Proximity to Area of Critical Environmental Concern (ACEC);
ii. Proximity to Shellfish Beds;
iii. Proximity to Other Coastal Wetlands;
iv. Proximity to Private Drinking Water Wells;
v. Proximity to Freshwater Wetlands;
vi. Proximity to Storm Drains.

Priority Areas: Applying these above criteria, we recommend the following order of public sewer service projects in the greatest need of finding a permanent wastewater solution:

Priority 1. Expanded Walker Creek Area (North and West of Route 128).
Priority 2. General Little River Drainage Area (South and East of Route 128, including Laurel Street and New Way Lane).
Priority 3. Expanded Jones River Drainage Area (North and East of Route 128 including "Daylor" study recommended public process for large parcels immediately North of Route 128 along Concord Street corridor).
Priority 4. Other potential sewer service areas within the city need to be considered on a case by case basis consistent with the proposed Citywide wastewater facilities plan, and recommended by the Sewer Task Force[8].

E. Private Construction of Sewers

Another important element of the STF effort has been to analyze the policy, purpose and effect of the sewer regulations relating to private construction of

[8] To accomplish this, we suggest that the Sewer Task Force group remain active, meeting quarterly for the purposes of recommending further sewer policy, provide input to the citywide wastewater management plan, and provide technical review on projects for consideration by the Administration and City Council for public sewers.

sewers which have been in effect since February, 2000.[9] These regulations presently allow residents to *privately* construct extensions to the city's *public* sewer works, provided that such projects adhere to specific rules governing the design requirements, management and control, accessibility, and eventual acceptance of such works as part of the city's public sewer works. While intended to encourage private efforts without the need for additional public expense to resolve wastewater problems in city neighborhoods, these regulations have been no small challenge for the city to enforce. Several reasons have been noted for the difficulty in assuring that private parties adhere to these rules:

- first, because private parties may understandably seek least cost alternatives in the construction of public works which tends to result in the city inheriting public works infrastructure that is incomplete or substandard;
- secondly, private sewer projects seem fraught with inconsistent management and project oversight, invariably requiring extensive assistance from our city engineering department;
- thirdly, private projects quite often lead to inconsistent inter-neighborhood participation;
- and finally, such projects may oftentimes invite neighborhood discord.

Upon review of these regulations and the city's more recent experiences in terms of managing private construction of sewer extensions since the enactment of these rules, the STF recommends that the City sewer regulations prohibit the permitting of private construction of sewers by homeowners for the foreseeable future.[10] Such a prohibition would not apply to projects being reviewed as subdivisions by the Planning Board because any sewer construction proposed as part of subdivision approval is required to be reviewed by the City Engineer and therefore would be approved or not as a result of the subdivision process.

F. POLICY FOR MANAGEMENT OF GRINDER PUMPS

Included with this report as Appendix 14 are proposed Grinder Pump Regulations that will be promulgated in the near future by the Department of Public Works, These regulations establish a consistent framework for both property owner and the city's public works staff regarding ownership, maintenance and repair of such grinder pumps. In addition, these regulations

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[9] These regulations are promulgated by the Administration under the authority of MGL C. 83, Section 10.

[10] The Administration has already established this moratorium on private sewer extensions by advertisement in the Gloucester Daily Times, March 24, 2005. See Appendix 5)

clarify the extent of work to be performed by the city on such pumps and further explain what the responsibilities of the homeowner are relative to these pumps. In these regulations, the city is making the commitment that, provided that an easement has been granted by the property owner to the city to do so, the city will continue to maintain such pumps and infrastructure from the location of the pump to the city's sewer line. However, any other maintenance or associated issues with infrastructure that is located between the residence and the pump remain the sole responsibility of the homeowner. These regulations apply only to those properties that have been or will be part of a "city" public sewer project. The city does not assume any responsibility for grinder pumps that may have been installed as part of any private sewer extension.

G. STEP SYSTEM MORATORIUM

The STF recommends that there be no expansion of the STEP sewer system whether by the City or by private parties. The STEP technology presents significant operations and maintenance (O & M) costs and differs from conventional sewers in its impact on our sewer treatment plant. This system was also designed to address specific pollution sources, and was not designed for an infinite capacity. STEP was designed to address only the defined needs of the area it is meant to serve. This system was not designed to meet the future needs of undeveloped land areas in North Gloucester. If the City enacts such a prohibition, this must be accomplished by means of a sewer ordinance amendment.

COSTS

The costs of the above named projects and all future projects would be fully borne by those abutters of the project areas. We recommend that the City provide the required administration and technical assistance as each project requires, and may, if the Mayor and City Council both approve, contribute to the cost of a given project if opportunities for improvements in water lines and other city-owned infrastructure requires.

Because these recommended projects will no doubt be paid for through the issuance of betterments, there will likely be those property-owners in need of financial assistance with betterments. The STF has identified a number of options listed in Appendix 18 that homeowners may consider. Some options may ease the immediate burden of the betterment, but may have other consequences. Each person should evaluate the type of financial assistance available in light of their own personal situation. (See Appendix 18)

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APPENDIX

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1. The Daylor Study- Executive Summary
   (West Gloucester Land Use and Wastewater Plan Draft Report adopted by City Council on 2/14/2003)

2. Summary of Sewer Task Force Proposed Amendments to City Code of Ordinances, Chapter 23, Article II Sewers

3. City of Gloucester Code of Ordinances- Article II Sewers

4. Sewer Extension Ordinance in Ward 5-Precinct 2
   Adopted By Council 12/17/02

5. Maps

6. Advertisement on Moratorium of Private Sewer Extensions, Gloucester Daily Times, March 27, 2005

7. City Engineering Department List of Existing Private Sewer Projects

8. Rules and Regulations Pertaining to the Acceptance of Private Sewers

9. Sample Memorandum of Agreement for Existing Private Sewer Extension Projects

10. Cost projections for existing sewer projects

11. Water Quality Testing Results For Walker Creek Area Taken ( ) By Board of Health

12. City Board of Health Inventory & Status of Septic Systems in Ward 5-2, Data-base

13. Preliminary Estimates on Priority Sewer Projects

14. Department of Public Works Grinder Pump Regulations & Maintenance Rules

15. Title 5 Septic System Informational Items

16. Sewer Task Force Charge

17. Department of Public Works Step System Information

18. Property owner cost assistance options

The Daylor Study- Executive Summary

(West Gloucester Land Use and Wastewater Plan Draft Report adopted by City Council on 2/14/2003)

1. Introduction and Executive Summary

The West Gloucester Land Use and Wastewater Plan is an effort to solve existing water quality and wastewater disposal problems in West Gloucester while at the same time planning proactively for the neighborhood's future. The immediate need for this project is based on the City of Gloucester's recent decision to sell some of its excess sewer capacity to the Town of Essex. As a result of this agreement, a new sewer line is planned to be built along Essex Avenue (Route 133).

In many ways, this proposed sewer line presents West Gloucester with an opportunity: an opportunity to correct longstanding water quality and wastewater treatment problems in the area and to attract desired forms of high-quality development that may require sewer service. On the other hand, the sewer may allow development to occur on lands that were previously undevelopable, resulting in runaway growth in a neighborhood that values its open space and rural character. The project, therefore, is an attempt to harness the proposed sewer extension as a force for positive change in West Gloucester.

In addition to the immediate need for this study created by the imminent construction of the Essex Avenue sewer line, there is an additional need resulting from more gradual changes within West Gloucester. Over time, new development in the area has consumed open space, generated additional traffic and public school students, and gradually altered the character of some sections of West Gloucester. While development *per se* can be either positive or negative, many area residents feel that unplanned growth in West Gloucester is likely to reduce the area's natural resources, aesthetic qualities, character, and affordability. Therefore, the project will also create a long-term plan to guide future growth, development, and conservation in the study area.

1.1 Goals of this Study

The specific goals of this study are to:

- Conduct a public participation process that allows West Gloucester residents to provide input on their goals and priorities for wastewater management and land use planning in the area;
- Examine existing conditions and factors in West Gloucester that are relevant to wastewater planning;
- Examine various wastewater management systems and their potential effect on growth and development in West Gloucester, and integrate these factors into the wastewater management plan;
- Recommend which sections of the study area should be served by sewer extensions, which sections should be served by localized community wastewater systems, and which sections should continue to use on-site wastewater systems;

- Prepare a plan to guide the future development and conservation of land in West Gloucester; and
- Develop short-term and long-term action plans that identify how the City could implement the Plan's recommendations.

This study complements, but does not duplicate, the work of Plan 2000, the City's new master plan that is expected to be completed in mid-2001. Whereas Plan 2000 is a broad and comprehensive set of goals, objectives, and recommendations for the entire City, this study focuses primarily on two issues—wastewater management and growth management—and on one geographic section of the City. In addition, this study focuses on specific recommendations and implementation actions and is therefore less of a vision statement and more of an action plan than Plan 2000. Plan 2000 is discussed further in Section 11.1.1.

1.2 Planning Process

The planning process for the West Gloucester Land Use and Wastewater Plan included a sequence of information gathering efforts, analysis, and recommendations. Initial public input was solicited at two meetings in November 2000 to define the community's goals and priorities that relate to wastewater management and growth management. (Summaries of these meetings are contained in Appendix A.) During the spring of 2001, the public was given the opportunity to comment on drafts of both the wastewater and land use components of the Plan. Two public comment periods, each lasting at least 30 days, were provided during the spring: one for the Interim Wastewater Report (presented on March 1, 2001 and released on March 9, 2001) and one for the Draft Report, which included land use recommendations (presented on April 17, 2001 and released on May 14, 2001).

Throughout the planning process, draft plans and other information, as well as an online public feedback form, were available on the project website. Overall, it is estimated that at least 15% of the Study Area's year-round adult population participated in the planning process. Approximately 50 residents attended each of the fall meetings; 150 residents attended each of the spring meetings; and several hundred users visited the project website and downloaded copies of the draft reports. In addition, approximately 50 written public comments were submitted during the process. (Copies of all written public comments are included in Appendix C, which is on file in the Community Development Department.) The public review and comment process was a very important part of this project, and resulted in several revisions to the draft plan before it was finalized.

To assist them in preparing this plan, the City has retained Daylor Consulting Group, Inc. ("Daylor"), a multidisciplinary engineering, planning, and environmental sciences firm based in Braintree, MA. Daylor's role in the project is to lead the public participation process, evaluate existing conditions, and prepare recommendations related to wastewater management and land use planning. While this report presents numerous recommendations to

the City based on public input as well as Daylor's analysis and professional judgment, the recommendations themselves do not have any authority as public policy. It is up to the City to implement these recommendations through its legislative body (the City Council) and its various departments.

1.3 Study Area

The study area is defined as the West Gloucester Interim Planning Overlay District, and is depicted on the cover and on all the maps in this report (Figures 1 through 10). This District includes almost all of Ward 5-2 in West Gloucester. The Ordinance that creates this district restricts private sewer connections as well as the subdivision of land into four or more lots within the district, for a period of five years from the enactment of the Ordinance on May 30, 2000.

The study area as defined by this District is bounded to the west by the Gloucester/Essex municipal boundary; to the north by Wingaersheek and Coffins Beach; and to the east by the Annisquam River, the Little River, and a line 200 feet to the southeast of Laurel Street. The southern boundary runs south of and generally parallel to Essex Avenue, approximately along the boundary between the R-2 and the R-2A zoning districts, and, further west, along the boundary between the R-3 and the R-RB zoning districts, including the spur roads that extend south off of Essex Avenue such as Laurel Street, New Way Lane, Lawrence Mountain Road, and portions of Forest Lane and Woodman Street. This area will be referred to as the "Study Area" throughout this report.

1.4 Organization of this Report

This Draft Report presents both the wastewater and land use recommendations, as well as the information and analysis that led to those recommendations. The report is divided into thirteen sections. The first section is this introduction and executive summary. Sections 2 through 7 present the wastewater analysis and recommendations. Sections 8 through 12 present the land use analysis and recommendations. Section 13 outlines an action plan for implementing the wastewater and land use recommendations.

1.5 Summary of Wastewater Plan

The wastewater recommendations are based on the following factors:

- The location and distribution of known or suspected failing on-site wastewater systems.
- The location and extent of water quality problems that are being caused by failing wastewater systems.

- The potential for and the advantages and disadvantages of providing various types of wastewater treatment to each neighborhood. Wastewater treatment systems considered include sewer service (gravity and pressure), community septic systems (utilizing a range of technologies), and on-site septic systems (also utilizing a range of technologies).
- The potential of each of the wastewater treatment solutions for contributing to undesirable secondary growth impacts, as well as the potential to facilitate desired development.
- The effect of the City's current Private Sewer Rules and Regulations, which allow private sewer extensions throughout the City. If this policy remains unchanged, private parties could extend the sewer anywhere in the Study Area, resulting in significant secondary growth impacts as well as possible system capacity issues.
- Community input and preferences identified through the planning process.

The wastewater recommendations are shown in Figure 5, and include the following five wastewater treatment solutions:

City Sewer Service Area (City SSA): These areas are a high priority for sewering because they contain a concentration of known or suspected failings, contribute significantly to water quality problems, and/or are located adjacent to the proposed sewer main on Essex Avenue. City-installed public sewer service is recommended in these areas, and sewer connections and extensions should be allowed for both existing development and new development.

Private Sewer Service Area (Private SSA): These areas are a lower priority for sewering than the City SSA because they contain fewer known or suspected failing systems and contribute less to water quality problems. While these areas do not warrant City-installed sewer service, existing homeowners or groups of homeowners in the Private SSAs should be able to build private sewer extensions to service existing development.

Contingent City Sewer Service Area (Contingent City SSA): These areas are a high priority for centralized wastewater treatment service because they contain a concentration of known or suspected failing systems and contribute to water quality problems. Providing that the Private Sewer Rules and Regulations are modified to disallow widespread private sewer extensions, wastewater treatment service in the Contingent City SSA should be sewer. However, if the Private Sewer Rules and Regulations remain as they are currently written, the potential growth impacts of sewering these areas would be large, and it is recommended that the City provide community wastewater systems for these areas.

Contingent Private Sewer Service Area (Contingent Private SSA): This area is a lower priority for sewering and does not warrant City-installed sewer service. However, private sewer extensions should be allowed in this area.

Individual On-Site System Area: These areas are a low priority for sewering because they are contain relatively few known or suspected failing systems, contribute little to water quality problems, are remote or sparsely developed, and/or would be a target for considerable development if they were sewered. Accordingly, private on-site septic systems are recommended for these areas. City or private sewer extensions should not be allowed in these areas.

1.6 Summary of Land Use Plan

In order to inform the land use planning process, Daylor prepared an analysis of existing land use, open space, wetlands and other regulated areas, and the growth potential within the Study Area under current zoning regulations. Based on public input and City goals identified during the planning process as well as Plan 2000 and the City's Open Space Plan, the land use plan was designed to promote the following goals and objectives:

- Direct any new growth away from rural areas and environmentally sensitive areas.
- Protect additional high priority open space lands through a variety of mechanisms.
- Maintain the Study Area's existing character by promoting compatible development designs.
- Protect the area's natural resources by enforcing existing regulations and promoting environmentally sensitive development designs.
- Encourage and facilitate the maintenance of existing affordable housing and the construction of new affordable housing through a variety of mechanisms.
- Develop effective implementation tools that do not unduly burden existing landowners.

The land use recommendations focus on targeting new development into appropriate sewered areas while protecting open space in the rural, unsewered areas. This can be accomplish through "incentive zoning" which encourages developers to contribute to open space protection in rural areas in exchange for building additional units in the sewered areas. The City should also develop a comprehensive open space protection program using several protection strategies.

Based on public input, desirable forms of development in the Study Area could include affordable housing, housing for senior citizens, and perhaps mixed-use development including a small retail component. The land use plan recommends a range of regulatory and incentive policies, as well as City and private sector initiatives, to allow these types of development to occur in a compatible manner.

Because residents highly value the Study Area's rural character, the City should consider several means of ensuring that new development is compatible with the existing neighborhood character, both environmentally and aesthetically. Potential tools include protections for steep slopes; stormwater management guidelines; revisions to the Subdivision Rules and Regulations; protection for scenic roads and corridors such as Essex Avenue; and building design guidelines for major projects. Policies that regulate the design of new development should be carefully structured to maximize their effect while minimizing the procedural burden placed on applicants and on the City boards, commission and departments that administer these policies.

Summary of Sewer Task Force Proposed Amendments to City Code of Ordinances, Chapter 23, Article II Sewers

Revised 06/01/2005

SUMMARY PROPOSED AMENDMENTS - CODE OF ORDINANCES
CHAPTER 23, ARTICLE II SEWERS

Amend ch. 23 as follows:

Sec. 23-16

Amend sec. Caption: - Delete current caption

New: **Laying out and payment for particular sewers; installation and maintenance of pumps; maintenance of STEP and prohibition of extending STEP;**

Amend sec. 23-16(a) by adding:

New: **"As of July 1, 2005, no sewer extensions to the public STEP sewer system shall be permitted or approved by City officials. In limited circumstances, a waiver to this prohibition may be permitted by the City Engineer if the City Board of Health has ordered a developed parcel with a failed septic system to connect as the only feasible means of abating the failure", pursuant to 310 CMR 15.00 et seq.**

Sec. 23-23 Compensatory Sewer Privilege[s] fee:

Amend sec. 23-23 by adding at end of sec:

"Compensatory fees shall be assessed such that the fee be reduced by a percentage (%) equivalent to the percentage reduction of the principal of the original bonds then remaining from the original assessment.

Sec. 23-24 Sewer Betterment Assessments

Amend 23-24(a): at line 4 after "herein"
delete remainder of section.

Amend 23-24(b)(1):

At line 9 delete "less the City share".

Amend - Add new sec. 23-25

By deleting sec. 23-16(b) and (c)
And moving to new 23-25 with caption "Sewer Privilege"

Chapter 23 UTILITIES*

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*Cross reference(s)--Buildings and building regulations, Ch. 5.

ARTICLE I. IN GENERAL

Secs. 23-1--23-14. Reserved.

ARTICLE II. SEWERS*

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*Cross reference(s)--Buildings and building regulations, Ch. 5; discharge of water or other liquid on sidewalks, § 21-10.

State law reference(s)--Municipal authority to regulate sewers, M.C.L.A. c. 40, §§ 5, 6; sewers generally, M.G.L.A. c. 83.

DIVISION 1. GENERALLY

Sec. 23-15. Assessments.

(a) Every person owning land abutting upon any way in which a main or common sewer has been laid out, and who enters or has entered his particular drain into such main drain or common sewer, or who by more remote means receives benefit thereby for draining his land or buildings, shall be assessed under the provisions of M.G.L.A. c. 83, § 14. The director of public works or the designee or designees of the director shall have the power as set forth in M.G.L.A. c. 83, § 15, when ascertaining assessments as a betterment for construction, to apply a rate based upon a uniform unit method. A uniform unit method shall be based upon sewerage construction costs divided among the total number of existing and potential sewer units to be served after having proportioned the cost of special and general benefit facilities as provided in section 23-24(a).

(b) Assessments under this section shall be ascertained, assessed, certified and committed to the city treasurer by the director of public works or the designee or designees of the director. Such assessments may be made for all sewers, lateral sewers, pump stations and appurtenant works. Sewer betterment assessments and any sewer betterment policies which are adopted by the city council under M.G.L. c. 80 and M.G.L. c. 83 for particular public sewer construction projects shall follow the procedures set out in section 23-24.

(Code 1970, § 18-1; Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-10-97; Ord. No. 20-1999, § I, 8-10-99)

~~**Sec. 23-16. Laying out and payment for particular sewers connecting with common sewer or main drain and sewer privilege fee.**~~

Sec. 23-16. Laying out and payment for particular sewers; installation and maintenance of pumps; maintenance of STEP and prohibition of extending STEP.

(a) Whenever, in the course of a sewer extension by the city, any land is connected with a common sewer or main drain laid out by the department of public works in a public or private way, the department shall, at the expense of the city, lay and maintain the particular sewer providing such connection from the common sewer or main drain to the boundary of the way, except in certain cases where a pump is necessary to tie in the property. If, at the time of construction by the city of a sewer extension, it is determined that a grinder pump or other such device will be required, pursuant to M.G.L. c. 83, § 15, in order to connect any existing building to the sewer, the city shall install and maintain the pump, force main and appurtenances. If the city sewer construction involves Septic Tank Effluent Pump (S.T.E.P.) sewers, the department shall, at the expense of the city, install and maintain the S.T.E.P. sewer components on the private properties which have habitable dwellings. The property owner may elect to install and/or maintain the grinder pump or other pump and the S.T.E.P. components by means of a private contractor as provided in the city sewer regulations. The city will not provide pumping systems or S.T.E.P. components for properties that are vacant or have structures which are uninhabitable at the time of the construction by the city of the sewer extension. Installation and maintenance of any pumps, tanks, and appurtenances as may be necessary for tying in residential, commercial or industrial properties developed subsequent to the construction by the city of a sewer extension will be the responsibility, of the private property owner. **"As of July 1, 2005, no sewer extensions to the public STEP sewer system shall be permitted or approved by City officials. In limited circumstances, a waiver to this prohibition may be permitted by the City Engineer if the City Board of Health has ordered a developed parcel with a failed septic system to connect as the only feasible means of abating the failure", pursuant to 310 CMR 15.00 et seq.**

~~(b) The owner of any land benefitted by the layout out of a particular sewer from the common sewer to the boundary of the way shall pay to the city for the permanent privilege of using the same, such reasonable amount as the director of public works may determine, under the provisions of M.G.L. A. c. 83, § 24, and the amount so determined shall be assessed, certified and committed to the city treasurer by the director of public works.~~

~~(c) Notwithstanding the provisions of section 23-15 and 23-16(a) and (b), the owner(s) of a subdivision which pursuant to the regulations of the planning board sections 4.4.2(c) or 4.4. 1 (b) who has/have been required to construct a sanitary sewer, shall~~

~~not be assessed a sewer betterment fee but shall be assessed a sewer privilege fee on a per lot basis in lieu of a betterment. Such fee shall be assessed at the time of the subdivision dry sewer is connected to the main sewer and may be subject to apportionment. In addition, regardless of whether or not a subdivision is involved, any applicant for a sewer extension permit shall at, the time such sewer extension is completed pay such privilege fee. The fee shall be determined by the director or the director's designee(s) and shall not exceed forty (40) percent of betterment for the most recent city sewer project.~~

(Code 1970, § 18-2; Ord. No. 9-1992, 3-3-92; Ord. No. 28-1992, § 3, 10-13-92; Ord. No. 42-1997, 6-10-97; Ord. No. 20-1999, § 1, 8-10-99)

Sec. 23-17. Disposition of receipts from assessments.

(a) The receipts from assessments for particular sewers shall be applied to the payment of the cost of particular sewers.

(b) The receipts from assessments and charges under section 23-15 shall be applied to the payment of interest upon bonds or notes issued for sewer purposes and to the payment or redemption of such bonds or notes.

(Code 1970, § 18-3)

Sec. 23-18. Plans of sewerage system

The location of all sewers and drains and other structures and works used in connection therewith, which constitute part of the system or systems of sewerage or sewage disposal laid out or constructed by the department of public works, shall be shown on plans on file at all times with the department of public works, and a duplicate of the plans shall be filed by the department with the city engineer. Both sets of plans shall be open to inspection by the citizens of the city.

(Code 1970, § 18-4)

State law reference(s)--Similar provisions, M.G.L.A. c. 83, § 2.

Sec. 23-19. Charges for use of common sewers.

(a) Every person who enters his particular sewer, directly or indirectly, into a common sewer laid out by the department of public works shall pay an annual charge for the use of the common sewers, under the provisions of M.G.L.A. c. 83, § 16. Such charges shall be based on rates established by the director of public works, and the charges on each person in accordance with the rate so established shall be ascertained, assessed, certified and committed to the city treasurer by the director of public works.

(b) Commercial users of the city sewer system using in excess of one million (1,000,000) gallons of water annually are assessed in addition to the charges under subsection (a) the sum of one hundred dollars ($100.00) for each million gallons of water used annually.

(Code 1970, § 18-5; Ord. of 5-17-77, § 1)

Sec. 23-20. Acceptance of out of town septage prohibited.

Acceptance of septage from out of town in the city's sewer system is prohibited.

(Ord. of 2-7-84, § I)

Sec. 23-21. Form of required notice.

Whenever notice is required of a party to this article, it shall be by certified mail, unless otherwise specified.

(Ord. of 12-7-82, Art. VIII)

Sec. 23-22. Land not built upon; extension of time for assessment.

Any land not built upon at the time of a sewer betterment assessment may upon application of the land owner receive an extension of time for the payment of the assessment until the land is built upon. Interest at the rate of four (4) percent per year shall be paid annually upon the assessment from the time it was made. The assessment shall be paid within three (3) months after such land is built upon.

(Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-10-97)

Sec. 23-23. Compensatory sewer privileges fee; increase in use of land.

Notwithstanding the other provisions of Chapter 23, Article II, Sewers, if a betterment has: (i) been assessed to a property based upon the estimated number of developable sewer units as required by this article or a sewer betterment policy adopted by the city council and said property is ultimately developed to accommodate a number of sewer units in excess of the number estimated for determining the betterment assessment, and/or (ii) been assessed to a developed and later in time the use of that parcel is increased to accommodate a number of sewer units in excess of the number estimated for determining the betterment assessment, then the city shall assess a compensatory sewer privilege fee to reflect the increased use. This fee shall be equivalent to the amount which would have been charged as a betterment assessment upon the additional uses or units at the time of the original assessment. Apportionment of this fee shall be permitted only if specifically requested at the time of assessment and only for a period of ten (10) years or less. Apportioned sewer privilege fees shall bear interest at the same rate charged for the most recent city sewer project betterments. Compensatory fees shall be assessed such that the fee be reduced by a percentage (%) equivalent to the percentage reduction of the principal of the original bonds then remaining from the original assessment.

(Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-19-97; Ord. No. 20-1999, § 1, 8-10-99)

Sec. 23-24. Sewer betterment assessments.

(a) *General.*

(1) The city, acting through the city council, shall assess the owners of land abutting a sewer line installed by the city, at a rate based upon a uniform unit method as defined by M.G.L. c. 83, § 15. Revenue generated by said betterment assessments shall cover the total project costs as defined herein. ~~in section 23-24(b)(1) less a city share equal to twenty-five (25) percent of said total costs up to and not to exceed an amount equal to the value of six thousand dollars ($6,000.00) per residential dwelling unit. When the sewer construction includes both sewer construction in the street and sewer construction on a private lot (such as S.T.E.P. sewer construction) for purposes of determining the city share:~~

~~a. To determine the unsubsidized cost of street work of per residential dwelling unit: divide the total costs for street construction by the number of street units.~~

~~b. To determine the unsubsidized cost per unit of on-lot work: divide the total cost of on-lot work by the number of on-lot installation units and the average costs of such on-lot construction for all similarly situated properties in the project to be assessed.~~

~~c. Add the unsubsidized costs per residential dwelling unit of street work to the unsubsidized cost per unit of on-lot installation and multiply the sum by twenty-five (25) percent.~~

~~d. The city's share of a residential unit will be either the figure resulting from above calculation or six thousand dollars ($6,000.00) on that individual property whichever is the lesser amount.~~

~~(2) On-lot betterments will be assessed:~~

~~a. For properties with S.T.E.P. sewers in accordance with the number and size of step tanks installed on the lot with one on-lot betterment assessed for each standard size tank installed on the parcel. On-lot betterments for oversized step tanks will be assessed with an increased betterment in an amount equal to the percentage increase in the size required for the lot; and~~

~~b. For grinder pumps or pressure sewer pumps in accordance with the actual project costs of the pumps.~~

(b) *Method of assessment: uniform unit.*

(1) The City of Gloucester shall assess sewer betterments based upon a uniform unit method. Each unit shall be equal to a single-family residence. Multiple-family buildings and nonresidential buildings as described herein shall be converted into units on the basis of residential equivalents. The total assessment for a particular sewerage construction project shall not be based on or limited by an estimated betterment. Revenue generated by said betterment assessment shall be equal to or shall cover the total project costs associated with design and construction of the sewers and pumping

station, and appurtenant work of both the on-street and on-lot sewer components. ~~less the city share.~~

(2) The city shall levy assessments against all properties abutting a sewered street after acceptance of the entire pertinent construction contract including finalization of all pertinent contractual documents. The date of acceptance shall be determined by the DPW director. In the order of assessment, the city shall designate the owner of each parcel on the preceding January first as liable for assessment under the provisions of the General Laws.

(3) For assessment purposes, all properties receiving direct benefit from the sewerage system shall be converted into sewer units. Properties receiving direct benefit, either developed or undeveloped, shall be designated a number of sewer units under the following guidelines:

a. Single-family dwellings shall comprise one (1) sewer unit.

b. Two-family dwellings shall comprise two (2) sewer units.

c. Three-family dwellings shall comprise three (3) sewer units.

d. Four-family dwellings shall comprise four (4) sewer units.

(4) Multiple-family dwellings in excess of four units shall comprise a number of sewer units based on the following methodology:

a. Rental residential properties such as apartments shall be assessed one sewer unit for each apartment with more than one bedroom. Rental properties shall be assessed one-half (1/2) of one (1) sewer unit for each one-bedroom or studio apartment.

b. Residential condominium. complexes shall be assessed one (1) sewer unit for each dwelling unit.

(5) Subdivisions shall be assessed one (1) sewer unit for each buildable lot except that a subdivision which pursuant to subdivision regulations of the city agreed in the course of subdivision approval to install and by the appropriate assessment date for betterments for a particular public sewer constriction project has actually installed a dry system in said subdivision shall not be assessed a sewer betterment fee per lot but shall be assessed a sewer privilege fee as set by the sewer ordinance (section 23-16(c)). Certain lots not involving actual subdivision shall also be assessed as provided in the sewer ordinance (section 23-16(c)).

(6) Non-residential buildings, which shall include all industrial, commercial and municipal properties, shall comprise a number of sewer units based upon water consumption as follows: Non-residential water usage (gpd) = sewer units three hundred (300) gpd (rounded up to the next whole number).

Non-residential buildings not metered for water use shall be assigned a water consumption volume based on Title 5 (Part 2, Section 13) of the State Environment

Code of the Commonwealth of Massachusetts, Minimum Requirements for the Subsurface Disposal of Sanitary Sewage.

(7) When a single structure or building contains a nonresidential use and a residential use and neither use is accessory to the other and the non-residential use does not receive city water service, such mixed use structure shall be charged a betterment only for the residential unit or use. This provision shall not apply in the following zoning districts as defined in the city zoning ordinance: BP, Business Park; GI, General Industrial; MI, Marine Industrial; EB, Extensive Business; and S, Service District.

(8) Undeveloped residential lots shall be converted into dwelling units on the basis of maximum number frontage and area requirements as directed in the zoning ordinance in effect at the time of assessment. Each potential dwelling unit shall then comprise one (1) sewer unit; however, undeveloped lots shall be assessed for only in-street sewer costs and shall not be assessed any on-lot costs. At the time that the lot is built upon, the property owner shall bear the complete costs of installing any necessary on-lot public and private sewer components on their private property pursuant to city sewer regulations.

The owner of an undeveloped lot may apply pursuant to M.C.G.L. c. 83, § 19, to extend the time for payment as provided in the sewer ordinance (section 22-23). In addition, land classified as agricultural, horticultural, recreations, or forest land, upon the application of the owner, may have the betterment assessment suspended for so long as the land is devoted to that use pursuant to M.G.L. c. 61A, § 18, M.G.L. c. 61B, § 13, and M.G.L. c. 61, § 5.

(9) Undeveloped non-residential lots shall be converted into a maximum anticipated water consumption on the basis of the zoning ordinance. An equivalent number of sewer units shall then be determined utilizing the formula described for nonresidential. developed properties (rounded up to the next whole number).

(10) Nothing in this section shall supersede the language of city ordinance section 23-23 concerning a compensatory fee for increase in the use of the land.

(c) *Betterment payment.*

(1) Except as provided herein, the provisions of the General Laws relative to the assessment, apportionment, division reassessment, abatement and collection of sewer assessments shall apply. The tax collector of the City of Gloucester shall have all of the powers conveyed by the General Laws. In accordance with M.G.L. c. 80, § 12, assessments made shall constitute a lien upon the land assessed until the full balance is paid.

(2) At the time of assessment, a property owner may select a payment schedule over a period of ten (10) years or twenty (20) years or another term of years less than twenty (20) if they so specifically request. Once a selection has been made, the payment method may not be changed at a later date; however, the balance of the principal due on any lien may be paid in full any time.

(3) Upon the transfer of title to a new owner, the seller/transferror shall immediately notify the city treasurer/collector and city assessor. After transfer of title, the betterment lien may be transferred. The betterments may be paid in full to the collector's office without interest or charges within thirty (30) days of the date of assessment.

(4) With regard to apportionment, the interest rate charged by the city shall be the project bond rate paid by the city for the sewer project plus a flat fee of two hundred dollars ($200.00) as allowed by Acts and Resolves of 1993, Commonwealth of Massachusetts, Chapter 433.

(d) *Abatements and deferrals.*

(1) *Unbuildable lot.*

a. A property owner may request of the building inspector a formal written opinion which declares that under the then current city zoning ordinance, the lot(s) which have been assessed a sewer betterment is not buildable without issuance of one (1) or more variances under the applicable zoning ordinance provisions. This letter must be filed permanently with the building inspector and with the zoning board of appeals. Upon issuance of the opinion, the property owner may then file an application for abatement with the assessing board which shall include a certified copy of the building inspector's opinion and which shall require a notarized statement that the owner and any subsequent purchaser or their assigns or agents shall not apply for a variance to make the lot buildable.

b. A property owner may file a notice of intent to construct a dwelling with the conservation commission for one (1) or more lots which have been assessed a sewer betterment. Following the regular hearing procedures of the conservation commission for any such notice, if the commission issues a formal denial of the notice of intent to construct a dwelling, and if all such documents which are otherwise required by law to be filed with the registry of deeds have been so filed, then the property owner may file with the assessing board an appeal action for abatement so long as the owner did not appeal the denial. The appeal action shall include a certified copy of the denial of the notice of intent to construct a dwelling.

c. All such abatements which are issued by the assessing board under this section 23-24(d)(1) shall also be permanently filed with the offices of the building inspector and the conservation commission. All applications and orders or opinions issued under this section shall state that the property owner has voluntarily requested that the property be found unbuildable and that the property owner fully understands all consequences stemming from such determination.

(2) *Age and income.*

A property owner may defer the betterment assessment as provided in M.G.L., c. 80, § 13B, which has been accepted by the city, if they are sixty-five (65) years of age or older and qualify under M.G.L., c. 59, § 4, clause 41A. However, the transfer of lien

provision, section 23-24(c), betterment payments, shall not apply to deferrals as provided for in this section, in compliance with c. 80, § 13B.

(Ord. No. 42-1999, 6-10-97; Ord. No. 20-1999, § 1, 8-10-99)

Secs. 23-25--23-34. Reserved.

Sec. 23-35. Sewer Privilege.

(a) The owner of any land benefitted by the layout out of a particular sewer from the common sewer to the boundary of the way shall pay to the city for the permanent privilege of using the same, such reasonable amount as the director of public works may determine, under the provisions of M.G.L. A. c. 83, § 24, and the amount so determined shall be assessed, certified and committed to the city treasurer by the director of public works.

(b) Notwithstanding the provisions of section 23-15 and 23-16(a) and (b), the owner(s) of a subdivision which pursuant to the regulations of the planning board sections 4.4.2(c) or 4.4. 1 (b) who has/have been required to construct a sanitary sewer, shall not be assessed a sewer betterment fee but shall be assessed a sewer privilege fee on a per lot basis in lieu of a betterment. Such fee shall be assessed at the time of the subdivision dry sewer is connected to the main sewer and may be subject to apportionment. In addition, regardless of whether or not a subdivision is involved, any applicant for a sewer extension permit shall at, the time such sewer extension is completed pay such privilege fee. The fee shall be determined by the director or the director's designee(s) and shall not exceed forty (40) percent of betterment for the most recent city sewer project.

DIVISION 2. USE REGULATIONS

Sec. 23-36. Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used in this article shall be as follows:

Act shall mean Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.

Average daily flow shall mean the total volume of sewage in gallons measured or estimated at a metering station or other point during a continuous period of thirty (30) days divided by thirty (30) days.

BOD (denoting biochemical oxygen demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty (20) degrees centigrade, expressed in milligrams per liter.

Building drain shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls

of the building and conveys it to the building sewer, beginning five (5) feet (1.5 meters) outside the inner face of the building wall.

City of Gloucester Code of Ordinances- Article II Sewers

Chapter 23

UTILITIES*

Article I. In General

Secs. 23-1—23-14. Reserved.

Article II. Sewers

Division 1. Generally

Sec. 23-15. Assessments.
Sec. 23-16. Laying out and payment for particular sewers connecting with common sewer or main drain and sewer privilege fee.
Sec. 23-17. Disposition of receipts from assessments.
Sec. 23-18. Plans of sewerage system
Sec. 23-19. Charges for use of common sewers.
Sec. 23-20. Acceptance of out of town septage prohibited.
Sec. 23-21. Form of required notice.
Sec. 23-22. Land not built upon; extension of time for assessment.
Sec. 23-23. Compensatory sewer privileges fee; increase in use of land.
Sec. 23-24. Sewer betterment assessments.
Secs. 23-25—23-34. Reserved.

Division 2. Use Regulations

Sec. 23-35. Definitions.
Sec. 23-36. Building sewers and connections.
Sec. 23-37. Restrictions on use of public sewers.
Sec. 23-38. Industrial user and pretreatment requirements.
Sec. 23-39. Tampering with facilities prohibited.
Sec. 23-40. Power and authority of inspectors.
Sec. 23-41. Violations.
Secs. 23-42—23-54. Reserved.

Article III. Water

Sec. 23-55. Construction and repair of hydrants or standpipes.
Sec. 23-56. Director of public works to determine and assess water rates; director's regulations relative to water service.
Sec. 23-57. Discontinuance of service for failure to pay water charges.
Sec. 23-58. Disposition of money paid into treasury on account of waterworks.
Sec. 23-59. Damaging waterworks property; unauthorized connections; etc.
Sec. 23-60. Water use restrictions.
Sec. 23-61. Cross connection control requirements.
Sec. 23-62. Protection of public water supplies.
Sec. 23-63. Penalties for violations.

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*Cross reference—Buildings and building regulations, Ch. 5.

Secs. 23-64—23-74. Reserved.

Article IV. Poles and Wires

Division 1. Generally

Sec. 23-75. Inspection of wires department established; city electrician designated inspector of wires.
Sec. 23-76. Duties of inspector of wires.
Sec. 23-77. Pole specifications.
Sec. 23-78. Poles not to interfere with hydrants, water pipes, etc.
Sec. 23-79. Supervision of work.
Sec. 23-80. Inspection of poles and supports.
Sec. 23-81. Repair of defective poles and supports.
Sec. 23-82. Removal of poles.
Sec. 23-83. Information required of persons operating wires.
Sec. 23-84. Compliance with plan and permit.
Sec. 23-85. Construction of lines crossing streets.
Sec. 23-86. Insulation of wires running through street.
Sec. 23-87. Permission required to place wires on poles of another.
Sec. 23-88. Location of antennas and similar wires.
Sec. 23-89. Attaching fixtures to trees.
Sec. 23-90. Injury to trees, shrubs, etc., by workmen.
Sec. 23-91. Temporary removal of wires.
Sec. 23-92. Removal of certain wires.
Sec. 23-93. Indemnification of city against claims for injuries.
Secs. 23-94—23-104. Reserved.

Division 2. Permit to Install and Maintain

Sec. 23-105. Required; authority of city council to grant.
Sec. 23-106. Street plan to accompany application.
Sec. 23-107. Agreements required of applicant.
Sec. 23-108. Action on application by city engineer.
Sec. 23-109. Hearing required on certain applications.
Sec. 23-110. Issuance; contents.
Sec. 23-111. Issued subject to certain rights of city.
Sec. 23-112. Records to be kept.

ARTICLE I. IN GENERAL

Secs. 23-1—23-14. Reserved.

ARTICLE II. SEWERS*

DIVISION 1. GENERALLY

Sec. 23-15. Assessments.

(a) Every person owning land abutting upon any way in which a main or common sewer has been laid out, and who enters or has entered his particular drain into such main drain or common sewer, or who by more remote means receives benefit thereby for draining his land or buildings, shall be assessed under the provisions of M.G.L.A. c. 83 § 14. The director of public works or the designee or designees of the director shall have the power as set forth in M.G.L.A. c. 83 § 15, when ascertaining assessments as a betterment for construction, to apply a rate based upon a uniform unit method. A uniform unit method shall be based upon sewerage construction costs divided among the total number of existing and potential sewer units to be served after having proportioned the cost of special and general benefit facilities.

(b) Assessments under this section shall be ascertained, assessed, certified and committed to the city treasurer by the director of public works or the designee or designees of the director. Such assessments may be made for all sewers, lateral sewers, pump stations and appurtenant works. Sewer betterment assessments and any sewer betterment policies which are adopted by the city council under M.G.L. c. 80 and M.G.L. c. 83 for particular public sewer construction projects shall follow the procedures set out in section 23-24.
(Code 1970, § 18-1; Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-10-97)

Sec. 23-16. Laying out and payment for particular sewers connecting with common sewer or main drain and sewer privilege fee.

(a) Whenever any land is connected with a common sewer or main drain laid out by the department of public works in a public way, the department shall, at the expense of the city, lay and maintain the particular sewer providing such connection from the common sewer or main drain to the boundary of the way, except in certain cases where a pump is necessary to tie in the property. If, at the time of construction by the city of a sewer extension, it is determined that a grinder pump or other such device will be required in order to connect any existing building to the sewer, the city shall install and maintain the pump, force main and appurtenances. If the sewer construction involves Septic Tank Effluent Pump (S.T.E.P.) sewers, the department shall, at the expense of the city, install and maintain the S.T.E.P. sewer

*Cross references—Buildings and building regulations, Ch. 5; discharge of water or other liquid on sidewalks, § 21-10.

State law references—Municipal authority to regulate sewers, M.C.L.A. c. 40, §§ 6, 6; sewers generally, M.G.L.A. c. 83.

components on the private properties which have habitable dwellings unless the property owner elects to install and maintain the S.T.E.P. components by means of a private contractor as provided in the city sewer regulations. The city will not provide pumping systems for properties that are vacant or have structures which are uninhabitable at the time of the construction of the sewer extension. Installation and maintenance of such pumps and appurtenances as may be necessary for tying in properties developed after the time of construction by the city of the sewer extension for residential, commercial or industrial use to an existing sewer will be the responsibility of the property owner. When a common sewer or main drain is constructed in a public way, the department may lay such particular sewers from the common sewer or main drain to the boundary of such way as may be necessary in the opinion of the director of public works to connect and land abutting on such way with such main drain or common sewer.

(b) The owner of any land benefited by the layout out of a particular sewer from the common sewer to the boundary of the way shall pay to the city for the permanent privilege of using the same, such reasonable amount as the director of public works may determine, under the provisions of M.G.L.A. c. 83 § 24, and the amount so determined shall be assessed, certified and committed to the city treasurer by the director of public works.

(c) Notwithstanding the provisions of section 23-15 and subsections 23-16(a) and (b), the owner(s) of a subdivision which pursuant to the regulations of the planning board sections 4.4.2(c) or 4.4.1(b) who has/have been required to construct a sanitary sewer, shall not be assessed a sewer betterment fee but shall be assessed a sewer privilege fee on a per lot basis in lieu of a betterment. Such fee shall be assessed at the time of the subdivision dry sewer is connected to the main sewer and may be subject to apportionment. In addition, regardless of whether or not a subdivision is involved, any applicant for a sewer extension permit shall at the time such sewer extension is completed pay such privilege fee. The fee shall be determined by the director or the director's designee(s) and shall not exceed forty (40) percent of betterment for the most recent city sewer project.
(Code 1970, § 18-2; Ord. No. 9-1992, 3-3-92; Ord. No. 28-1992, § 3, 10-13-92; Ord. No. 42-1997, 6-10-97)

Sec. 23-17. Disposition of receipts from assessments.

(a) The receipts from assessments for particular sewers shall be applied to the payment of the cost of particular sewers.

(b) The receipts from assessments and charges under section 23-15 shall be applied to the payment of interest upon bonds or notes issued for sewer purposes and to the payment or redemption of such bonds or notes.
(Code 1970, § 18-3)

Sec. 23-18. Plans of sewerage system

The location of all sewers and drains and other structures and works used in connection therewith, which constitute part of the system or systems of sewerage or sewage disposal laid

out or constructed by the department of public works, shall be shown on plans on file at all times with the department of public works, and a duplicate of the plans shall be filed by the department with the city engineer. Both sets of plans shall be open to inspection by the citizens of the city.
(Code 1970, § 18-4)

State law reference—Similar provisions, M.G.L.A. c. 83, § 2.

Sec. 23-19. Charges for use of common sewers.

(a) Every person who enters his particular sewer, directly or indirectly, into a common sewer laid out by the department of public works shall pay an annual charge for the use of the common sewers, under the provisions of M.G.L.A. c. 83, § 16. Such charges shall be based on rates established by the director of public works, and the charges on each person in accordance with the rate so established shall be ascertained, assessed, certified and committed to the city treasurer by the director of public works.

(b) Commercial users of the city sewer system using in excess of one million (1,000,000) gallons of water annually are assessed in addition to the charges under subsection (a) the sum of one hundred dollars ($100.00) for each million gallons of water used annually.
(Code 1970, § 18-5; Ord. of 5-17-77, § 1)

Sec. 23-20. Acceptance of out of town septage prohibited.

Acceptance of septage from out of town in the city's sewer system is prohibited.
(Ord. of 2-7-84, § I)

Sec. 23-21. Form of required notice.

Whenever notice is required of a party to this article, it shall be by certified mail, unless otherwise specified.
(Ord. of 12-7-82, Art. VIII)

Sec. 23-22. Land not built upon; extension of time for assessment.

Any land not built upon at the time of a sewer betterment assessment may upon application of the land owner receive an extension of time for the payment of the assessment until the land is built upon. Interest at the rate of four (4) percent per year shall be paid annually upon the assessment from the time it was made. The assessment shall be paid within three (3) months after such land is built upon.
(Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-10-97)

Sec. 23-23. Compensatory sewer privileges fee; increase in use of land.

Notwithstanding the other provisions of Chapter 23, Article II, Sewers, if a betterment has: (i) been assessed to a property based upon the estimated number of developable sewer units as required by this article or a sewer betterment policy adopted by the city council and said property is ultimately developed to accommodate a number of sewer units in excess of the

number estimated for determining the betterment assessment, and/or (ii) been assessed to a developed and later in time the use of that parcel is increased to accommodate a number of sewer units in excess of the number estimated for determining the betterment assessment, then the city shall assess a compensatory sewer privilege fee to reflect the increased use. This fee shall be equivalent to the amount which would have been charged as a betterment assessment upon the additional uses or units at the time of the original assessment. Apportionment of this fee shall be permitted only if specifically requested at the time of assessment and only for a period of ten (10) years or less. Apportioned sewer privilege fees shall bear interest at the same rate charged for the most recent city sewer project betterments. (Ord. No. 9-1992, 3-3-92; Ord. No. 42-1997, 6-19-97)

Sec. 23-24. Sewer betterment assessments.

(a) *General.* The City of Gloucester, acting through the city council, shall assess the owners of land abutting a sewer line installed by the city, at a rate based upon a uniform unit method as defined by M.G.L. c. 83 § 15. Revenue generated by said betterment assessments shall cover the total project costs as defined herein less a city share equal to twenty-five (25) percent of said total costs up to and not to exceed an amount equal to the value of six thousand dollars ($6,000.00) per residential dwelling unit. When the sewer construction includes both sewer construction in the street and sewer construction on a private lot (such as STEP sewer construction) for purposes of determining the city share:

To determine the unsubsidized cost of street work of per residential dwelling unit, divide the total costs for street construction by the number of street units.

To determine the unsubsidized cost per unit of on-lot work, divide the total cost of on-lot work by the number of on-lot installation units.

Add the unsubsidized costs per residential dwelling unit of street work to the unsubsidized cost per unit of on-lot installation and multiply the sum by twenty-five (25) percent.

The city's share of a residential unit will be either the figure resulting from above calculation or six thousand dollars ($6,000.00) on that individual property whichever is the lesser amount.

Formula: (Sum of street cost divided by total number of residential dwelling units) times the number of residential dwelling units on this particular lot: plus the (sum of the on-lot costs divided by the total number of on-lot units) times the number of tanks on this particular lot: times twenty-five (25) percent or six thousand dollars ($6,000.00) per residential dwelling unit, whichever is less = the city share.

Example: Assume twelve million five hundred thousand dollars ($12,500,000.00) total betterment project.

Breakdown of costs:

On street costs: Eight million dollars ($8,000,000.00).

On-lot costs: Four million five hundred fifty thousand dollars ($4,550,000.00).

Number of residential dwelling units: Five hundred fifty (550).

Number of on-lot tank installations: Four hundred forty-five (445).

For a three (3) family house with one (1) standard tank:

($8,000,000.00 divided by 550 = $14,545.00) × 3 residential units on the lot = $43,636.00 plus $4,550,000.00 divided by 455 on-lot tank installations = $10,000.00 × 1 = $10,000.00 = $53,636.00 divided by 3 = 17,879 per residential dwelling unit × 25 percent = $4,470.00

City's share per residential dwelling unit × 3 = $13,410.00 city's share for three (3) residential dwelling units.

On-lot betterments will be assessed in accordance with the number and size of step tanks installed on the lot. One (1) on-lot betterment will be assessed for each standard size tank installed on the parcel. On-lot betterments for oversized step tanks will be assessed with an additional on-lot betterment in an amount equal to the percentage increase in the size required for the lot.

(b) *Method of assessment: uniform unit.*

(1) The City of Gloucester shall assess sewer betterments based upon a uniform unit method. Each unit shall be equal to a single-family residence. Multiple family buildings and non-residential buildings as described herein shall be converted into units on the basis of residential equivalents. The total assessment for a particular sewerage construction project shall not be based on or limited by an estimated betterment. Revenue generated by said betterment assessment shall be equal to or shall cover the total project costs associated with design and construction of the sewers and pumping station, and appurtenant work of both the on-street and on-lot sewer components, less the city share.

(2) The city shall levy assessments against all properties abutting a sewered street after acceptance of the entire pertinent construction contract including finalization of all pertinent contractual documents. The date of acceptance shall be determined by the DPW director. In the order of assessment, the city shall designate the owner of each parcel on the preceding January 1st as liable for assessment under the provisions of the General Laws.

(3) For assessment purposes, all properties receiving direct benefit from the sewerage system shall be converted into sewer units. Properties receiving direct benefit, either developed or undeveloped, shall be designated a number of sewer units under the following guidelines:

1. Single-family dwellings shall comprise one (1) sewer unit.
2. Two-family dwellings shall comprise two (2) sewer units.
3. Three-family dwellings shall comprise three (3) sewer units.
4. Four-family dwelling shall comprise four (4) sewer units.

(4) Multiple family dwellings in excess of four (4) units shall comprise a number of sewer units based on the following methodology:

a. Rental residential properties such as apartments shall be assessed one (1) sewer unit for each apartment with more than one (1) bedroom. Rental properties shall be assessed one-half (½) of one (1) sewer unit for each one (1) bedroom or studio apartment.

b. Residential condominium complexes shall be assessed one (1) sewer unit for each dwelling unit.

(5) Subdivisions shall be assessed one (1) sewer unit for each buildable lot except that a subdivision which pursuant to subdivision regulations of the City of Gloucester agreed to install and by the appropriate assessment date for betterments for this phase of the North Gloucester Sewer Project has actually installed a dry system in said subdivision shall not be assessed a sewer betterment fee per lot but shall be assessed a sewer privilege fee as set by the sewer ordinance (subsection 23-16(c)). Certain lots not involving actual subdivision shall also be assessed as provided in the sewer ordinance (subsection 23-16(c)).

(6) a. Non-residential buildings, which shall include all industrial, commercial and municipal properties, shall comprise a number of sewer units based upon water consumption as follows: Non-residential water usage (gpd) = sewer units 300 (gpd). (Rounded up to the next whole number.)

Non-residential buildings not metered for water use shall be assigned a water consumption volume based on Title 5 (Part 2, Section 13) of the State Environment Code of the Commonwealth of Massachusetts, Minimum Requirements for the Subsurface Disposal of Sanitary Sewage.

(6) b. When a single structure or building contains a non-residential use and a residential use and neither use is accessory to the other and the non-residential use does not receive city water service, such mixed use structure shall be charged a betterment only for the residential unit or use. This provision shall not apply in the following zoning districts as defined in the city zoning ordinance: BP, Business Park; GI, General Industrial; MI, Marine Industrial; EB, Extensive Business; and S, Service District.

(7) Undeveloped residential lots shall be converted into dwelling units on the basis of maximum number frontage and area requirements as directed in the zoning ordinance in effect at the time of assessment. Each potential dwelling unit shall then comprise one (1) sewer unit; however, undeveloped lots shall be assessed for only in-street STEP sewer costs. At the time that the lot is built upon, the property owner shall bear the complete costs of installing STEP components on their private property.

The owner of an undeveloped lot may apply pursuant to M.G.L. c. 83 § 19 to extend the time for payment as provided in the sewer ordinance (section 22-23). In addition, land classified as agricultural, horticultural, recreations, or forest land, upon the applica-

tion of the owner, may have the betterment assessment suspended for so long as the land is devoted to that use pursuant to M.G.L. c. 61A § 18, M.G.L., c. 61B § 13, and M.G.L. c. 61 § 5.

(8) Undeveloped non-residential lots shall be converted into a maximum anticipated water consumption on the basis of the zoning ordinance. An equivalent number of sewer units shall then be determined utilizing the formula described for non-residential, developed properties (Rounded up to the next whole number).

(9) Nothing in this section shall supersede the language of section 23-23 concerning a compensatory fee for increase in the use of the land.

(c) *Betterment payment.* Except as provided herein, the provisions of the General Laws relative to the assessment, apportionment, division reassessment, abatement and collection of sewer assessments shall apply. The tax collector of the City of Gloucester shall have all of the powers conveyed by the General Laws.

In accordance with M.G.L. c. 80 § 12, assessments made shall constitute a lien upon the land assessed until the full balance is paid.

At the time of assessment, a property owner may select a payment schedule over a period of ten (10) years or twenty (20) years or another term of years less than twenty (20) if they so specifically request. Once a selection has been made, the payment method may not be changed at a later date; however, the balance of the principal due on any lien may be paid in full at any time.

Upon the transfer of title to a new owner, the seller/transferor shall immediately notify the city treasurer/collector and city assessor. After transfer of title, the betterment lien may be transferred. The betterments may be paid in full to the collector's office without interest or charges within thirty (30) days of the date of assessment.

With regard to apportionment, the interest rate charged by the city shall be the project bond rate paid by the city for the sewer project plus a flat fee of two hundred dollars ($200.00), as allowed by Acts and Resolves of 1993, Commonwealth of Massachusetts, Chapter 433.

(d) *Abatements and deferrals.*

(1) *Unbuildable lot.* A property owner may request of the building inspector a formal written opinion which declares that under the then current city zoning ordinance, the lot(s) which have been assessed a sewer betterment is not buildable without issuance of one (1) or more variances under the applicable zoning ordinance provisions. This letter must be filed permanently with the building inspector and with the zoning board of appeals. Upon issuance of the opinion, the property owner may then file an application for abatement with the assessing board which shall include a certified copy of the building inspector's opinion and which shall require a notarized statement that the owner and any subsequent purchaser or their assigns or agents shall not apply for a variance to make the lot buildable.

A property owner may file a notice of intent to construct a dwelling with the city conservation commission for one (1) or more lots which have been assessed a sewer

betterment. Following the regular hearing procedures of the conservation commission for any such notice, if the commission issues a formal denial of the notice of intent to construct a dwelling, and if all such documents which are otherwise required by law to be filed with the Registry of Deeds have been so filed, then the property owner may file with the assessing board an appeal action for abatement so long as the owner did not appeal the denial. The appeal action shall include a certified copy of the denial of the notice of intent to construct a dwelling.

All such abatements which are issued by the assessing board under this subsection 23-24(d)(1) shall also be permanently filed with the offices of the building inspector and the conservation commission. All applications and orders or opinions issued under this section shall state that the property owner has voluntarily requested that the property be found unbuildable and that the property owner fully understands all consequences stemming from such determination.

(2) *Age and income.* A property owner may defer the betterment assessment as provided in M.G.L. c. 80 § 13B, which has been accepted by the City of Gloucester, if they are sixty-five (65) years of age or older and qualify under M.G.L. c. 59 § 4, Clause 41A. However, the transfer of lien provision, subsection 23-24(c), betterment payments, shall not apply to deferrals as provided for in this section, in compliance with M.G.L. c. 80 § 13B.

(Ord. No. 42-1999, 6-10-97)

Secs. 23-25—23-34. Reserved.

DIVISION 2. USE REGULATIONS

Sec. 23-35. Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used in this article shall be as follows:

Act shall mean Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.

Average daily flow shall mean the total volume of sewage in gallons measured or estimated at a metering station or other point during a continuous period of thirty (30) days divided by thirty (30) days.

BOD (denoting biochemical oxygen demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty (20) degrees centigrade, expressed in milligrams per liter.

Building drain shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet (1.5 meters) outside the inner face of the building wall.

Sewer Extension Ordinance in Ward 5-Precinct 2
Adopted By Council 12/17/02

Dale

SEWER EXTENSION ORDINANCE

VERSION: December 17, 2002 As Approved by the Full City Council

CHAPTER 23 UTILITIES
ARTICLE II. SEWERS
DIVISION 2: USE REGULATIONS
Section 23-42. SEWER EXTENSIONS IN WARD FIVE (5) - PRECINCT TWO (2).

(A). Authority.

Article II, SEWERS, Division 2, regarding sewer extensions in Ward Five (5) - Precinct Two (2), hereafter Ward 5-2, has been adopted pursuant to authority set forth in Mass. G.L. c. 83, s. 10.

(B). Purpose.

This ordinance is designed to serve the following purposes:

(1) To promote the efficiency and effectiveness of the Gloucester sewer system.

(2) To limit the number of sewer extensions in Ward 5-2 in an effort to conserve citywide resources pertaining to sewage treatment.

(3) To provide for orderly growth in Ward 5-2.

(4) To delineate areas intended for service by fixed-line sewers versus those areas intended for service by onsite wastewater treatment.

(5) To depict where the City of Gloucester may consider authorizing funding for sewer construction and to depict where private parties may fund the cost for sewer construction.

(C). STATEMENT OF LEGISLATIVE INTENT.

In 1989 the city was required by state and federal government consent decree (USA and Commonwealth of Massachusetts v. City of Gloucester, No. 89-22067-Y) to deal with contamination emanating from sanitary system emissions. The decree included local action to restore and maintain coastal water quality, including formulation of a Wastewater Management Plan (Board of Health, 1994) which provides strategies to identify and replace substandard septic systems in seven parts of the city with known coastal water pollution problems. The Wastewater Management Plan was developed just as the Commonwealth updated on-site wastewater regulations known as Title 5 and it provides a framework to ensure that all septic systems are properly maintained. On August 3, 2000 standards articulated in this plan were adopted as Onsite Wastewater Regulations (Regulation #6) by the Board of Health. More recently, the Town of Essex was ordered to resolve long standing similar issues of failing septic systems and water

pollution. The result was that an intermunicipal agreement was instituted providing that Essex would tie into Gloucester's sewer system after it finances construction of a main sewer line along Essex Avenue in Gloucester. With the impending construction of a sewer to Essex, it became a priority to address development potential within the Essex Avenue corridor and on adjacent streets because the area is completely unsewered and has large tracts of undeveloped land. The West Gloucester Land Use and Wastewater Plan (Ward 5-2 Section) - Final Report, by Daylor Consulting Group, was a byproduct of public process that explores how to solve existing water quality and wastewater disposal problems in the 5-2 precinct while at the same time planning proactively for future physical development of the area. This study: (1) assesses water pollution associated with failing septic systems in the 5-2 precinct; (2) identifies areas where on-site wastewater solutions are most feasible and/or cost effective; (3) identifies areas where sanitary sewer connections are most feasible or cost effective; and (4) places every property either in or out of one of two defined 'sewer service areas' within which it is permissible for a user to dispose wastewater into the sanitary sewer system. This sewer extension ordinance does not necessarily authorize or mandate construction of sewers by the city, but rather it enables or makes it permissible to develop sewers within certain eligible sewer service areas, and it is intended to promote consistency with recommendations of The West Gloucester Land Use and Wastewater Plan (Ward 5-2 Section) and the Community Development Plan For The City of Gloucester, 2001 by providing a mechanism to facilitate orderly development of sewers inside the aforementioned sewer service areas, to promote sitings of onsite wastewater systems outside of these areas, and to establish a procedure whereby City Council may amend these sewer service area boundaries through defined public process. A separate city ordinance and corresponding DPW sewer rules and regulations provide for application and review of a permit application to actually construct specific sewer extensions city wide (including Ward 5-2).

(D). Effect of Ordinance.

This ordinance shall apply in the Ward 5-2 Wastewater District as defined below. This ordinance shall supersede all other Ordinances and Rules and Regulations to the extent such other Ordinances or Rules and Regulations contradict this ordinance.

(E). Definitions.

The following definitions shall apply:

> *(1) Sewer Extension*: The extension of any existing public or private sewer line, or the installation of any new public or private sewer line, including the appurtenant sewer works for which the ultimate point of wastewater treatment is the City of Gloucester

wastewater treatment plant. Any installation of sewer pipe in an existing or newly created public or private way, or any installation of sewer pipe other than a sewer service connection, shall be deemed to be a sewer extension.

(2) Eligible Sewer Extension: Any proposed sewer extension that is situated entirely within one of two categories of "Sewer Service Areas" as shown on the Ward 5-2 Wastewater District Map, Exhibit A hereto, is eligible for a Sewer Extension Permit hereunder. A sewer extension deemed "eligible" shall not be entitled to a sewer extension permit unless all other requirements of this ordinance have been satisfied. The depiction of a sewer extension as "eligible" shall not be construed as a representation that the City of Gloucester shall set aside funds for the construction, in whole or in part, of said sewer extension.

(3) Sewer Extension Permit: The document issued by the City of Gloucester Department of Public Works, or its designee, as set forth in Section F, below.

(4) Sewer Service Connection: Shall mean the extension of the pipe, used only for discharge of sewage, from a point of four (4) feet outside the foundation wall of the building served to its junction with the sanitary or combined sewer. The term shall have the same meaning as the term, "particular sewer" in M.G.L.A. C. 83.

(5) Ward 5-2 Wastewater District: The area shown on the Ward 5-2 Wastewater District Map in which this ordinance shall apply.

(6) Ward 5-2 Wastewater District Map: A map entitled "**WASTEWATER DISTRICT MAP: Areas Eligible For City Sewer Service & Areas Eligible for Private Sewer Service PER CITY ORDINANCE, CH. 23 UTILITIES, ART. II. SEWERS, DIV. 2: USE REGULATIONS, Sec. 23-42 SEWER EXTENSIONS IN WARD FIVE PRECINCT TWO"** referred to as Exhibit A hereto, which is on file with the Gloucester City Clerk and available for review in the City of Gloucester Community Development Department, the Department of Public Health and the DPW/ Engineering Department, and which has been adopted by the Gloucester City Council to define the areas eligible for sewer extensions in the Ward 5-2 Wastewater District. The Ward 5-2 Wastewater District Map and the accompanying text description may be amended from time to time by the Gloucester City Council in accordance with the procedures set forth herein.

(F). Sewer Extension Permits.

All applicants proposing to extend an existing public or private sewer line or to create a new

sewer extension shall obtain a sewer extension permit from the Department of Public Works (DPW) before such extension is permitted.

(1) Application. The Gloucester DPW may adopt rules and regulations pertaining to the review of sewer extension permits, including but not limited to definition of the minimum required contents of a sewer extension permit application and definition of what constitutes a complete application. Applications will be reviewed for completeness within thirty (30) days.

(2) Eligible Sewer Extensions. No sewer extension permit shall be issued by the DPW unless such sewer extension is entirely within one or more areas that are Eligible Sewer Extension(s)" on Exhibit A, attached hereto, as may be amended.

(G). Sewer Extension Permit Conditions.

Sewer extension permits shall be expressly subject to all provisions of this ordinance and to all other applicable ordinances and regulations, user charges and fees established by the City of Gloucester and the DPW to the extent not superseded hereby.

(H). Ward 5-2 Wastewater District Map.

(1) Effect. No sewer extension permit shall be granted unless such proposed extension is entirely within one or more of the areas of "Eligible Sewer Extension(s)" as shown on the Ward 5-2 Wastewater District Map, Exhibit A, attached hereto, as may be amended from time to time by the City Council.

(2) Amendment. A petition to amend the Ward 5-2 Wastewater District Map may be presented to the City Council by any applicant for a sewer extension permit, or, in the alternative, by the DPW or the Board of Health. The City Council shall take final action on such petitions within one hundred and twenty (120) days of receipt of a complete application. Sixteen (16) copies of the application for such review shall be provided to City Council by the applicant. Within five (5) days of the receipt of any petition, the City Clerk on behalf of City Council shall send the application to and request the written recommendation of the DPW, Planning Board, Capital Improvements Advisory Board, Conservation Commission, Board of Health, and the Shellfish Advisory Commission. The City Council may request the applicant to submit all information necessary, and may engage technical experts, at the applicant's expense, in order to make its determination as set forth below. Failure by any reviewing agency to respond to the City Council within

sixty -five (65) days shall be deemed a lack of opposition to the petition.

(3) Criteria. The City Council may amend the Ward 5-2 Wastewater District Map by adding or deleting areas eligible for sewer extensions. In determining whether an area should be classified as "eligible," the City Council shall consider whether the proposed sewer extension in the area meets the following criteria:

(a) The proposed sewer extension does not serve an area that could be feasibly served by either on-site or community wastewater treatment systems.

(b) The proposed sewer extension promotes the efficiency and effectiveness of the Gloucester sewer system.

(c) The proposed sewer extension was shown on a definitive plan approved by the planning board prior to the effective date of this ordinance.

(d) The proposed sewer extension improves the capacity of an existing overloaded sewer line.

(e) The proposed sewer extension eliminates the need for a pump station serving existing development.

(f) The Board of Health has determined that the proposed sewer extension is necessary to address existing water pollution problems or public health threats and has provided the rationale for such determination in writing to the City Council.

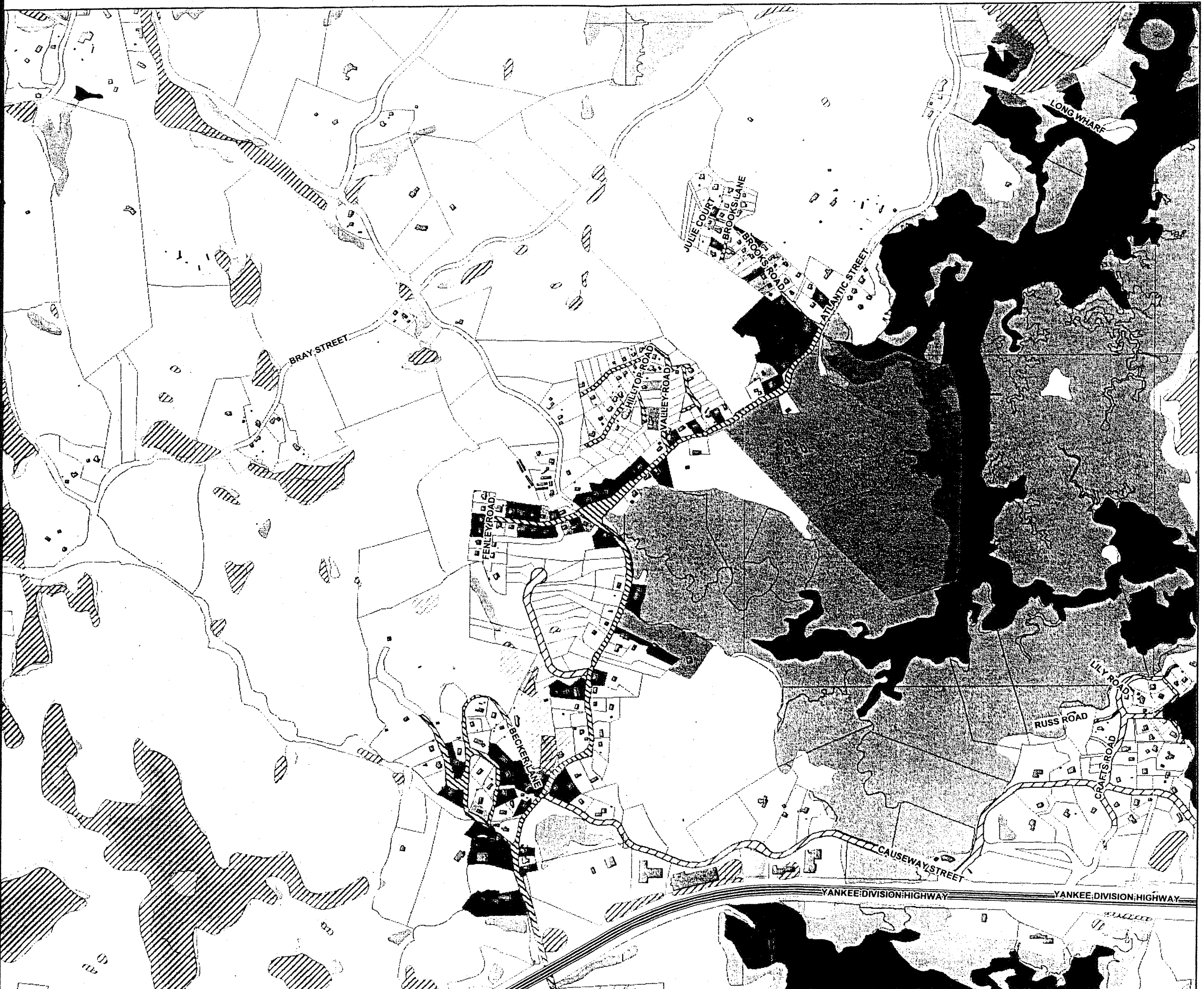
(4) Denial. The City Council shall deny any proposed amendments to the Ward 5-2 Wastewater District Map that do not meet criterion (a) AND at least one of the criteria (b) through (f). Any denial shall be in writing and shall state the reasons therefor.

(I). Effective Date.

This ordinance shall take effect on _____.

End of Ordinance.

City of Gloucester | Health Department | Priority Drainage Areas | 2005



City of Gloucester
Health Department

WASTEWATER DISTRICT MAP:
EXPANDED JONES RIVER

Areas Eligible for City Sewer Service & Areas Eligible for Private Sewer Service

PER CITY ORDINANCE, CH. 23 UTILITIES, ART. II. SEWERS DIV. 2: USE REGULATIONS, Sec 23 - 42 SEWER EXTENSIONS IN WARD FIVE PRECINCT TWO

City Ordinance Approved by a Majority of the City Council on December 17, 2002

AREAS ELIGIBLE FOR SEWER SERVICE

- CITY SSAs: By Road
- PRIVATE SSAs: By Road and Parcel

Wetlands

- MassGIS Wetlands
- MassGIS Open Water
- MassGIS Tidal Flat
- Gloucester Wetlands (100' Buffer)
- Gloucester Wetlands

Priority Drainage Parcels

- Officially Failed
- Tight Tank
- Systems Passing Function Check Only
- System Installed under Title 5
- Other Lots Passing Title 5 Inspection

LOCATOR:

NOTES:

1.
Except when labeled to the contrary, boundary lines shown approximately to follow property lines, road rights-of-way, or the coastline shall be deemed actually to follow such property lines, road rights-of-way, or the coastline. In particular, SSA boundaries that are shown approximately to be entirely within the road right-of-way shall be deemed to be entirely within the road right-of-way and shall not extend onto properties that abut the road right-of-way. When not locatable in any other way, boundaries shall be determined by scale from this map.

2.
This map accompanies City Ordinance, CH. 23 UTILITIES, ART. II, SEWERS, DIV. 2: USE REGULATIONS. Sec.23-42 SEWER ESTENSIONS IN WARD FIVE PRECINCT.

3.
Sewer extensions are only permissible within a designated City SSA or Private SSA.

4.
Sewer connections are permissible on any street within a City SSA or Private SSA that has a sewer constructed according to the appropriate permit (regulatory) reviews.

DATA SOURCES:

Sewer Service Areas:
City of Gloucester Planning and Daylor Consulting

Hydro Features:
MassGIS; 1:5,000 wetlands and surface water

Parcels:
City of Gloucester Assessing Department.
FY2003 parcel lines

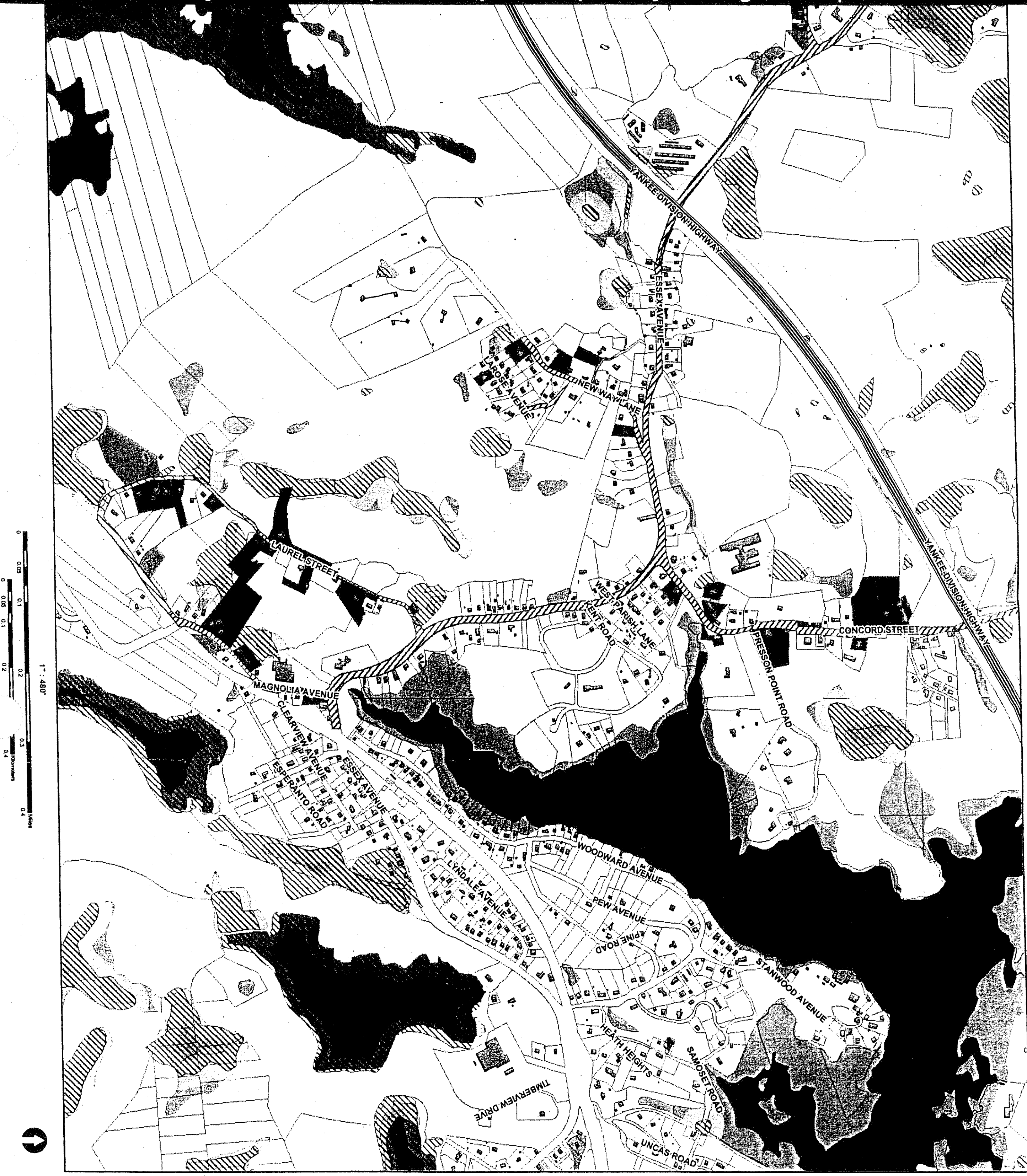
08 July 2005
David Sargent, Health Department
D R A F T
City of Gloucester, Applied Geographics
To be placed on file with Gloucester Community Development, Engineering and City Clerk.

1" : 480'

0 0.05 0.1 0.2 0.3 0.4 Miles

0 0.05 0.1 0.2 0.4 Kilometers

City of Gloucester | Health Department | Priority Drainage Areas | 2005



City of Gloucester
Health Department

WASTEWATER DISTRICT MAP:
GENERAL LITTLE RIVER

Areas Eligible for City Sewer Service &
Areas Eligible for Private Sewer Service

PER CITY ORDINANCE, CH. 23 UTILITIES, ART. II.
SEWERS DIV. 2: USE REGULATIONS, Sec 23 - 42
SEWER EXTENSIONS IN WARD FIVE PRECINCT TWO

City Ordinance Approved by a Majority of the City Council on December 17, 2002

AREAS ELIGIBLE FOR SEWER SERVICE

- CITY SSAs: By Road
- PRIVATE SSAs: By Road and Parcel

Wetlands

- MassGIS Wetlands
- MassGIS Open Water
- MassGIS Tidal Flat
- Gloucester Wetlands (100' Buffer)
- Gloucester Wetlands

Priority Drainage Parcels

- Officially Failed

LOCATOR:

NOTES:

1.
Except when labeled to the contrary, boundary lines shown approximately to follow property lines, road rights-of-way, or the coastline shall be deemed actually to follow such property lines, road rights-of-way, or the coastline. In particular, SSA boundaries that are shown approximately to be entirely within the road right-of-way shall be deemed to be entirely within the road right-of-way and shall not extend onto properties that abut the road right-of-way. When not locatable in any other way, boundaries shall be determined by scale from this map.

2.
This map accompanies City Ordinance, CH. 23 UTILITIES, ART. II, SEWERS, DIV. 2, USE REGULATIONS, Sec 23-42 SEWER ESTENSIONS IN WARD FIVE PRECINCT.

3.
Sewer extensions are only permissible within a designated City SSA or Private SSA.

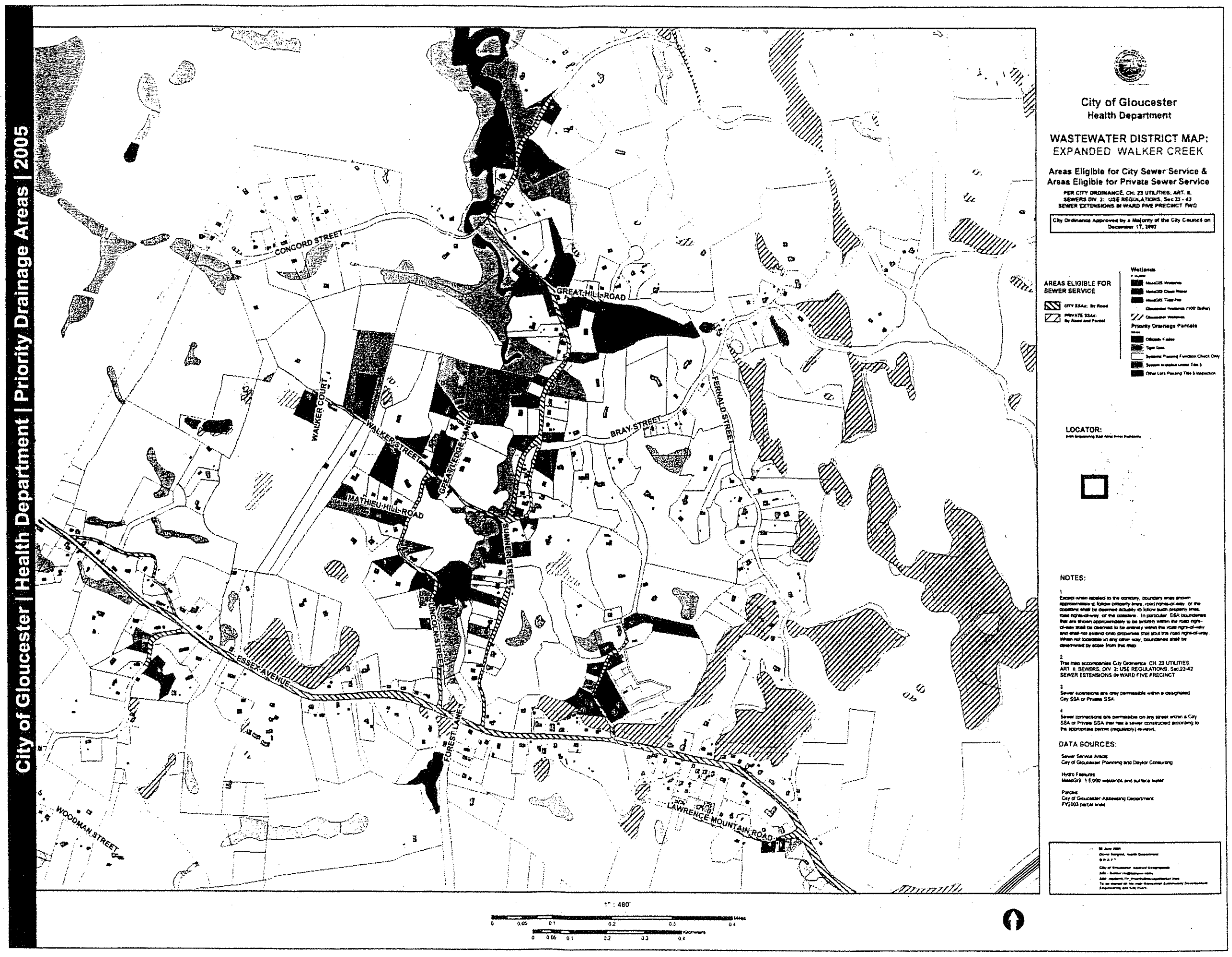
4.
Sewer connections are permissible on any street within a City SSA or Private SSA that has a sewer constructed according to the appropriate permit (regulatory) reviews.

DATA SOURCES:

Sewer Service Areas:
City of Gloucester Planning and Daylor Consulting

Hydro Features:
MassGIS: 1:5,000 wetlands and surface water

Parcels:
City of Gloucester Assessing Department
FY2003 parcel lines


City of Gloucester | Health Department | Priority Drainage Areas | 2005
City of Gloucester
Health Department
WASTEWATER DISTRICT MAP:
EXPANDED WALKER CREEK
Areas Eligible for City Sewer Service &
Areas Eligible for Private Sewer Service
PER CITY ORDINANCE, CH. 23 UTILITIES, ART. II,
SEWERS DIV. 2: USE REGULATIONS, Sec 23 - 42
SEWER EXTENSIONS IN WARD FIVE PRECINCT TWO
AREAS ELIGIBLE FOR SEWER SERVICE
Wetlands
Priority Drainage Parcels
LOCATOR:
NOTES:
2
This map accompanies City Ordinance CH. 23 UTILITIES, ART. II, SEWERS, DIV. 2: USE REGULATIONS, Sec.23-42 SEWER ESTENSIONS IN WARD FIVE PRECINCT
3
Sewer extensions are only permissible within a designated City SSA or Private SSA.
DATA SOURCES:
Sewer Service Areas
City of Gloucester Planning and Daylor Consulting
Hydro Features
MassGIS 1:5,000 wetlands and surface water
Parcels
City of Gloucester Assessing Department
FY2003 parcel lines
CONCORD STREET
GREAT HILL ROAD
WALKER COURT
WALKER STREET
GREAT LEDGE LANE
BRAY STREET
FERNALD STREET
MATHIEU HILL ROAD
SUMNER STREET
ESSEX AVENUE
FOREST LANE
LAWRENCE MOUNTAIN ROAD
WOODMAN STREET
1" : 480'

As the mapping information on the Daylor Study becomes available, it will be entered in this section.

Advertisement on Moratorium of Private Sewer Extensions, Gloucester Daily Times, March 27, 2005

Printed in Gloucester Daily Times, March 24, 2005

RULES AND REGULATIONS PERTAINING TO THE ACCEPTANCE OF PRIVATE SEWERS

Preamble: The purpose of the regulations is to regulate the installation of sewer extensions intending to become accepted, owned and maintained by the City of Gloucester. These regulations are promulgated pursuant to Massachusetts General Law, Chapter 83 Section 10, and serve to amend any existing City of Gloucester private sewer rules and regulations. If any portion (s) of these regulations are inconsistent with any other existing City of Gloucester ordinances or regulations relating to sewers, these regulations shall prevail.

1. Effective Date: These regulations take effect on the date of publication in the Gloucester Daily Times.

2. City will not accept any new private sewer permit applications: The City is currently revising its Rules and Regulations pertaining to the acceptance of private sewers and until such time as new regulations are promulgated, will not accept new applications. Only applications in the process of being reviewed by the City Engineering Department as of the date of publication in the Gloucester Daily Times shall be allowed to move forward under the rules and regulations promulgated on February 1, 2000.

City Engineering Department List of Existing Private Sewer Projects

Privately Constructed Sewer Extensions Not Constructed as of 3/24/05					
Location	Length (ft)	Number of Lots	Sewer Type	Status	Date Permitted
Baker Street	900	2	2" Pressure	Under Review	NA
Beachcroft Road	400	7	2" Pressure	State Permit	05/26/2004
Blyman Avenue	90	2	8" Gravity	State Permit	11/08/2004
Cherry Street	230	3	8" Gravity	State Permit	02/28/2001
Dennis Court	250	3	2" Pressure	State Permit	04/13/2004
Dodge Street	80	2	8" Gravity	State Transmital	NA
Emerson Avenue	250	2	2" Pressure	Under Review	NA
High Popples Rd Eagle Rd to Linkds Rd	1100	10	3" Pressure	State Permit	09/14/2004
High Popples Rd to Eagle Rd	90	2	3" Pressure	State Permit	07/26/2004
Paige St. & Way Rd.	4000	30	8" Gravity	Design Approved	NA
Silva Court	900	3	8" Gravity	Under Review	NA
Western Avenue	165	6	12" Gravity	State Permit	03/11/2004
Western Ave. & Old Salem Road	395	2	12"& 8" Gravity	State Permit	10/07/2003
Witham Street (Way Off)	200	2	2" Pressure	State Permit	01/15/2004

*These projects have been accepted by the City Engineer, and will proceed as planned. No other construction of private sewers shall be permitted without recommendation of the Sewer Task Force to the Mayor, consistent with a city-wide wastewater management facilities plan.

Rules and Regulations Pertaining to the Acceptance of Private Sewers

RULES AND REGULATIONS
PERTAINING TO THE ACCEPTANCE OF PRIVATE SEWERS

Preamble: The purpose of these regulations is to regulate the installation of sewer extensions intending to become accepted, owned and maintained by the City of Gloucester. These regulations are promulgated pursuant to Massachusetts General Laws Chapter 83 Section 10, and serve to amend any existing City of Gloucester sewer rules and regulations. If any portion(s) of these regulations are inconsistent with any other existing City of Gloucester ordinances or regulations relating to sewers, these regulations shall prevail.

Section 1. Effective Date. These regulations take effect February 1, 2000.

Section 2. Administration of These Regulations. A person or entity seeking to construct a private sewer extension with the intention of having the City accept and/or own and maintain the extension must have said extension approved by the Department of Public Works (DPW) Director or his/her designee. For the purposes of these regulations the words "DPW Director or his/her designee" shall refer to the City Engineer.

Section 3. Definitions.

a. Sewer Extension. A sewer extension is a sewer pipe and appurtenant works installed, owned and maintained by a private person or entity which is accepted by the City and five years after the date of acceptance becomes the property of and is maintained by the City. Line ownership and the ability to accept future connections are the primary indicators of an extension. Capacity and length are not deciding factors.

b. Applicant. A person or entity seeking to construct a private sewer extension with the intention of having the City of Gloucester accept, own and maintain the extension.

c. Acceptance. A private sewer extension is accepted when the DPW Director or his/her designee declares in writing that the extension *is* suitable for use and able to receive wastewater from users. This notice of acceptance shall be signed, dated and kept on file in the Engineering Department. Testing of the line and any appurtenant works, including pump stations, in accordance with City rules and regulations, standard engineering practice or as otherwise determined by the DPW Director or his/her designee is a prerequisite for acceptance of a private sewer extension.

Acceptance of a sewer extension by the City does not constitute ownership. In accordance with these regulations, a sewer extension

will be owned and maintained by the applicant for at least five years after the date of acceptance by the City. Any work performed by the City in that period does not constitute ownership by the City or preclude responsibility for operation and maintenance of the line by the applicant.

Section 4. Submittals Prior to Construction. Prior to initiating construction of a sewer extension, the applicant must submit all of the following for approval by the DPW Director or his/her designee:

a. Estimated costs of the project, with backup documentation

b. Proof of an escrow account or bond worth 25% of the estimated project cost, to be supervised by the City Treasurer for five years. The account or bond will be released at transfer of ownership to the City as described in Section 16.

c. Proposed plans stamped by a Massachusetts' Registered Professional Engineer. Any design modifications to the proposed sewer must be resubmitted prior to construction.

d. Satisfactory proof of ownership, easements or other legal right to construct sewer lines along the proposed route. The City Engineer shall determine if such proof is satisfactory.

e. Any submittal deemed to be incomplete or unsatisfactory shall be returned to the applicant

Section 5. Other Permits and Approvals. It is incumbent upon an applicant to obtain any necessary local, state or federal permits and approvals prior to initiating a sewer extension, including but not limited to a Commonwealth of Massachusetts Sewer Extension Permit.

Section *6.* Technical Specifications. The extension shall be designed to accommodate any land with frontage on the street(s) being sewered. Undeveloped land will be factored according to current zoning as of the date of submittal, provided the submittal has been deemed to be complete. The project must be constructed according to the plans approved by the DPW Director or his/her designee. All pertinent City ordinances, rules and regulations must be addressed. In the absence of code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications of the A.S.T.M. and W.P.C.F. Manual of Practice No. 9 shall apply.

For a sewer extension that will eventually be owned by the City, it is the

City's preference that the pipe be installed in existing public or private roads rather than across private property. This will facilitate the City's ability to maintain and service the line once it becomes the property of the City. However, if a sewer is approved to be built across private property other than a private road, all temporary construction easements and all permanent easements must first be obtained and provided to the City.

Section 7. Sewer Permit. The applicant or his/her agent must obtain a Sewer Permit from the Engineering Department prior to commencing construction.

Section 8. Inspections. It is the responsibility of the applicant to notify the City's inspectors as to the construction schedule and keep the inspectors apprised of changes to that schedule. The applicant or authorized representative thereof shall so arrange the work to require the service of the inspector as short a time as practicable. No trench shall be filled in until the pipe laid therein has been inspected and approved by the inspector after it is laid.

Contractors must call the Engineering Department to request all a sewer inspections. An inspector will inspect the requested site according to the schedule below.

For Inspections	*Deadline for Request*
Monday through Thursday between 1:00 and 2:30 PM	10:00 AM that day
Friday between 8:30 AM and 12:30 PM	2:30 PM Thursday

If the request comes in after the above deadlines the site will not be inspected until the next inspection period. If the inspector arrives to do an inspection and the contractor is not ready, there will be a 24-hour wait before an inspector comes back to do the inspection.

Section 9. Acceptance of a Private Sewer Extension.

An applicant must submit the following to the DPW Director or his/her designee for review in order for the sewer extension to be accepted by the City:

a. As-built plans, on mylar, stamped by a Massachusetts' Registered Professional Engineer;

b. All operations and maintenance manuals and warranties acquired on the project;

c. Copies of the necessary easements as recorded at the Essex South District Registry of Deeds or Land Court;

d. If any pump stations are being reviewed for acceptance, a report prepared by an independent engineering consultant documenting that the pump stations (i) have been tested in accordance with measures approved by the DPW Director or his/her designee and (ii) have met the criteria for satisfactory performance in these tests;

If, upon reviewing the above submittals or inspection reports, the DPW Director or his/her designee determines that the project fails to meet satisfactory performance criteria or notes any problems with the submittals, s/he will promptly notify the applicant in writing and request revisions or corrections. Failure to correct any such problems is grounds for denial of the acceptance.

Upon satisfactory review of the above documents, including any required corrections, the DPW Director or his/her designee will notify the applicant or his/her agent in writing that the line has been accepted. This notification will also assess a sewer privilege fee as noted below. This notification shall be signed, dated and kept on file in the Engineering Department.

No connections shall be made to a sewer extension until the City issues a letter of acceptance.

Section 10. Sewer Privilege Fee. Upon acceptance of the sewer extension by the City, the applicant must pay a sewer privilege fee in accordance with Section 23-16(c) of the City Ordinances. This ordinance requires a fee on a per lot basis in lieu of a betterment. The fee shall be determined by the director or the director's designee(s) and shall not exceed forty (40) percent of the City's most recent betterment for a sewer project.

Section 11. Sewer Connections. An applicant must apply to the Engineering Department for a sewer connection permit prior to initiating an individual connection to a sewer extension.

Section 12. Street Assessments. The applicant willobtain at his/her expense an independent audit of accounts. A copy of the audit shall be provided to the DPW director or his/her designee. After the audit, street assessments will be assigned by dividing the total costs associated with the project by the number of probable connections abutting the line. No assessments will be assigned for potential future sewer extensions. Total costs shall not include any administrative fees attached by the applicant.

Section 13. Connection Costs. Costs borne by connecting property owners consist of the street assessment and any expenses incurred from connection to the extension.

For a period of five years after the City accepts the sewer extension, each

property owner wishing to connect to the sewer extension must pay the street assessment directly to the applicant or an agent designated by the applicant. Property owners who do not connect to the extension within five years of its acceptance shall not pay such street assessments to the applicant.

After the five years, property owners who connect to the sewer extension will pay the remainder of the street assessments directly to the City. The applicant releases all rights to collect street assessments from property owners who do not connect within five years after the date of acceptance, regardless of whether the applicant has been fully compensated for the costs of construction.

Section 14. Sewer User Charges Upon connection to the sewer extension, every user shall pay sewer user charges as per Gloucester Code of Ordinances Sec. 23-19.

Section 15. Existing Connections Becoming an Extension. There exist in the City properties that connect to the municipal sewer via pipes that have been laid in a public or private road or right-of-way. For the purposes of this section, such a connection is referred to as "an existing connection." If another property owner wishes to connect one or more properties to the municipal sewer via such an existing connection, this owner will be considered an applicant and the new connection will be considered a sewer extension subject to these rules and regulations.

If an applicant wishes to connect to an existing connection which has been laid in the road the original owner must grant permission for the applicant to connect. The pipe connecting to the City sewer must be tested or viewed via camera per the discretion of the DPW Director or his/her designee.

All expenses for such tests are the responsibility of the applicant. There is no opportunity for recovery of expenses for this process or previous expenses incurred. A sewer extension permit will be not be issued unless the existing connection is deemed to be in satisfactory condition

Section 16. Transfer of Ownership to City. The City will assume ownership and maintenance responsibility five years after the date of acceptance under the following conditions. No later than sixty days before the end of the five-year period, the applicant must submit the following to the DPW Director or his/her designee:

(a) Operation, maintenance and repair records for the previous five years;
(b) All necessary easements for operations, maintenance and repair;

(c) List of all existing connections;
(d) List of all potential connections.
(e) If required by the Director or his/her designee, the applicant may be required to test the line. Such testing may include but not be limited to camera, dye testing, smoke testing or measures as determined by the DPW Director or his/her designee.
(f) Any other documents required to demonstrate that the line and appurtenant works are free from defects.

The City will assume ownership of the line if each of the above have been submitted and satisfactory performance criteria have been met; otherwise, the City will return submittals as incomplete or unsatisfactory.

The City will not assume ownership and maintenance responsibility if the DPW Director or his/her designee deems the applicant to have misused the line, accepted connections without obtaining the proper permits from the City or violated any applicable sewer rules, regulations or laws.

Section 17. Extensions to a Sewer Extension. As the intention of a sewer extension is to be owned and maintained by the City, all further extensions to a sewer extension must be constructed and administered in accordance with these Rules and Regulations. Each application for an additional extension will be considered a separate sewer extension. The City will assess a sewer privilege fee to each new applicant. An existing applicant may not charge any fees or assessments to a new applicant, either within the five year period after acceptance of the original extension nor after ownership has been transferred to the City.

For illustrative purposes, an applicant who plans to install a sewer extension with the intention of having the City assume ownership in the future shall be referred to as Applicant A. The City will assess a sewer privilege fee to Applicant A in accordance with Section 10 of these regulations. If an individual plans to extend the sewer from Applicant A's extension to a further location, s/he shall be referred to as Applicant B. The extension installed by applicant B shall be considered a separate extension from Applicant A's. The City will assess a sewer privilege fee to Applicant B in accordance with Section 10 of these regulations. Applicant A may not charge any fees or assessments to Applicant B.

Section18 Penalties for Violation. Pursuant to Massachusetts General Laws Chapter 83 Section 10, violation of these regulations is subject to a civil penalty of not more than five thousand dollars ($5,000) per day.

Sample Memorandum of Agreement for Existing Private Sewer Extension Projects

CITY OF GLOUCESTER

GLOUCESTER • MASSACHUSETTS 01930

MEMORANDUM OF AGREEMENT

The undersigned applicant for a sewer extension permit hereby agrees to follow the rules and regulations for private sewer extensions, as detailed in the City's "Rules and Regulations Pertaining to the Acceptance of Private Sewers", dated February 1, 2000 (hereinafter referred to as "the regulations"). In addition, the undersigned, as an applicant (a person or entity) of a private sewer extension, agrees with the spirit and intent of the regulations as detailed:

1. The purpose of the regulations is to regulate the installation of sewer extensions, by anyone other than the City of Gloucester (hereinafter referred to as the "City"), that will become accepted, owned and maintained by the City.
2. The City will not allow any private sewer construction that is not intended to become part of the Gloucester public sewer system.
3. The City will not allow applicants (a person or entity) of a private sewer extension to charge an unreasonable fee to those abutters wishing to connect to the sewer. Prior to allowing connections to the private sewer, the applicant shall provide an independently audited cost of the private sewer to the City. The City will then set the cost to connect to the new sewer, on a per-connection basis. Prior to issuing a connection permit, the person to connect shall provide the City with documentation demonstrating payment of said fee to the applicant.
4. As specifically detailed in Section 17. Extensions to a Sewer, of the regulations, an existing sewer extension applicant may not charge any fees or assessments to a new applicant. Applicant A may not charge any fees or assessments to Applicant B.
5. These regulations are promulgated pursuant to Massachusetts General Laws Chapter 83, Section 10, and serve to amend any existing City of Gloucester sewer rules and regulations. If any portion(s) of these regulations are inconsistent with any other existing City of Gloucester ordinances or regulations relating to sewers, these regulations shall prevail.
6. Any private sewer extension shall execute this Memorandum of Understanding, that states he/she understands the regulations, accepts, and will follow them. Failure to execute this document will be grounds for the City to disallow the private sewer extension application.

For the City:

_____

David H. Knowlton, City Engineer

_____

Date

For the Applicant

_____

_____

Date

G:\ENGINEER\miscellaneous\private sewer extension mou 12-6-04.lwp

*Sample Memorandum of Agreement for approved projects for privately constructed sewer extensions. This agreement is required for all projects.

Summary of Existing Sewer Projects

Expanded Walker Creek Priority Drainage Area

north and west of Route 128

Septic System Status

(in Daylor Public SSAs)

141 developed lots with Septic Systems

34 lots have officially failed Septic Systems

1 lot has a Tight Tank

14 lots have Septic Systems have been
installed under the current Title 5

16 other lots have Septic Systems that
have passed a Title 5 inspection

76 lots have Septic Systems that have passed
a basic function check only
(these inspections should not be confused with the
more thorough Title 5 inspection
that is generally performed for the purpose
of property transfer)

General Little River Priority Drainage Area

south and east of Route 128

Septic System Status

(in Daylor Public SSAs)

102 developed lots with Septic Systems

16 lots have officially failed Septic Systems

1 lot has a Tight Tank

5 lots have Septic Systems have been
installed under the current Title 5

17 other lots have Septic Systems that
have passed a Title 5 inspection

63 lots have Septic Systems that have passed
a basic function check only
(these inspections should not be confused with the
more thorough Title 5 inspection
that is generally performed for the purpose
of property transfer)

Expanded Jones River Priority Drainage Area

north and east of Route 128

Septic System Status

(in Daylor Public SSAs)

162 developed lots with Septic Systems

27 lots have officially failed Septic Systems

9 lots have Tight Tanks

6 lots have Septic Systems have been
installed under the current Title 5

23 other lots have Septic Systems that
have passed a Title 5 inspection

97 lots have Septic Systems that have passed
a basic function check only
(these inspections should not be confused with the
more thorough Title 5 inspection
that is generally performed for the purpose
of property transfer)

Existing General Fund Betterment Financing

Year	Betterment Revenue Forecast	Debt Serivce Expense	Net Cost	Final Project Debt Service
2006	2,605,351	3,867,786	1,262,435	
2007	2,644,260	3,899,297	1,255,037	
2008	2,782,959	4,071,853	1,288,894	
2009	2,774,696	4,053,715	1,279,019	
2010	2,646,163	3,834,742	1,188,579	
2011	2,606,649	3,774,218	1,167,569	
2012	2,477,282	3,553,296	1,076,014	
2013	2,432,755	3,486,267	1,053,512	
2014	2,398,383	3,430,745	1,032,362	North Gloucester - Phase 1
2015	2,301,415	3,263,248	961,833	
2016	1,932,647	2,763,316	830,669	
2017	1,738,875	2,502,333	763,458	North Gloucester - Phase 2
2018	1,481,610	2,156,439	674,829	
2019	1,459,763	2,123,944	664,181	Kent Circle
2020	1,445,745	2,020,216	574,471	Bond, Eastern, Stage Fort, Elizabeth
2021	1,283,625	1,879,624	595,999	North Gloucester - Phases 3, 4, & 5; Witham, Pond, Eastern
2022	545,609	775,652	230,043	
2023	535,176	759,627	224,451	Barker, Gurden; Adams; Calder, Sunset, Hilliard; Hillside, Gilbert
2024	451,616	602,155	150,539	
2025	224,184	298,913	74,729	

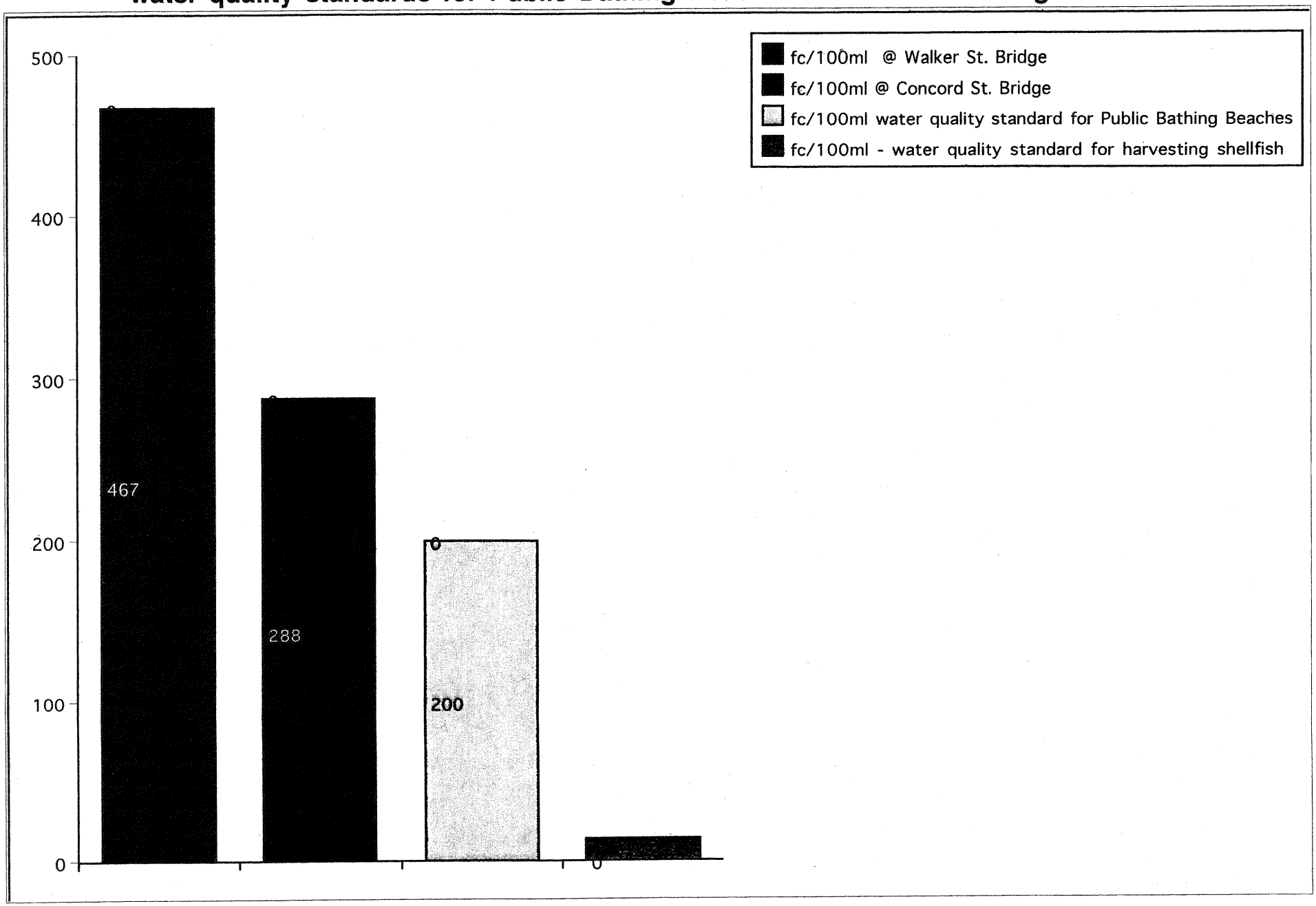
Fiscal Effect of Betterment Ordinance

FY 2006	1,262,435	
FY 2007	1,255,037	
FY 2008	1,288,894	
FY 2009	1,279,019	
FY 2010	1,188,579	
FY 2011	1,167,569	
FY 2012	1,076,014	
FY 2013	1,053,512	
FY 2014	1,032,362	(1)
FY 2015	961,833	
FY 2016	830,669	
FY 2017	763,458	(2)
FY 2018	674,829	
FY 2019	664,181	(3)
FY 2020	574,471	(4)
FY 2021	595,999	(5)
FY 2022	230,043	
FY 2023	224,451	(6)
FY 2024	150,539	
FY 2025	74,729	
Total	16,348,623	

(1) Last year of NG Phase 1
(2) Last year of NG Phase 2
(3) Last year of Kent Circle
(4) Last year of Bond, Eastern, Stage Fort, Elizabeth
(5) Last Year of Marble, Pond, Eastern, Witham; NG Phase 3; NG Phases 4 & 5
(6) Last Year of Barker, Gurden; Adams; Calder, Sunset, Hilliard; Hillside Gilbert

Water Quality Testing Results For Walker Creek Area
Taken ( ) By Board of Health

Comparison (in geometric means) of low water samples taken from Walker Creek @ Walker St. Bridge and from Walker Creek @ Concord Street Bridge to water quality standards for Public Bathing Beaches and the harvesting of shellfish



City Board of Health Inventory & Status of Septic Systems in Ward 5-2, Data-base

Status Key

ND = Not Determined

OCBZ = Outside Critical Buffer Zone

ICBZ = Inside Critical Buffer Zone

SVN = Site Visit Needed

Daylor/Public SSA = officially failed septic system in a Daylor recommened Public Sewer Service Area

Daylor/Private SSA = officially failed septic system in a Daylor recommened Private Sewer Service Area

Daylor/TTK = tight tank (holding tank) in a Daylor recommended Sewer Service Area

Daylor/NEW = septic system that was constructed under the current Title 5 in a Daylor SSA

Daylor T-5 = system that is not either failed, new, or a tight tank and has passed a Title 5 inspection in a Daylor SSA

System Key

GENSEP = General Septic System

RESCES = Residential Cesspool

RESPIT = Residential Pit

RESFLD = Residential Field

RESTRN = Residential Trench

TTK = Tight Tank

RSF = Recirculating Sand Filter

ISF = Intermittant Sand Filter

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
228	4	6	LAWRENCE MOUNTAIN RD	W--LITTLE RIVER	Daylor/Public SSA	GENSEP
227	68	8	LAWRENCE MOUNTAIN RD	W-LITTLE RIVER	Daylor/Public SSA	GENSEP
237	8	1	WOODMAN ST	W-ESSEX	ND	GENSEP
237	103	10	WOODMAN ST	W-ESSEX	Daylor T-5	GENSEP
[illegible]	3	27	ANDREWS CT	W-ESSEX	ND	GENSEP
[illegible]	88	21	WOODMAN ST	W-ESSEX	ND	RESPIT
237	69	9	WOODMAN ST	W-ESSEX	Daylor/NEW	Micro FAST
237	67	4	WOODMAN ST	W-ESSEX	ND	GENSEP
237	50	8	ANDREWS CT	W-ESSEX	ND	GENSEP
237	42	4	ANDREWS CT	W-ESSEX	ND	GENSEP
237	41	5	ANDREWS CT	W-ESSEX	ND	GENSEP
237	18	2	WOODMAN ST	W-ESSEX	ND	GENSEP
237	17	22	WOODMAN ST	W-ESSEX	ND	GENSEP
237	11	17	WOODMAN ST	W-ESSEX	ND	GENSEP
237	9	11	WOODMAN ST	W-ESSEX	Daylor/Public SSA	GENSEP
240	85	9	GREAT HILL RD	WALKER CREEK	Daylor/NEW	GENSEP
236	25	24	SUMNER ST	WALKER CREEK	OCBZ-site	RESCES
240	83	49A	SUMNER ST	WALKER CREEK	Daylor/NEW	RSF
249	32	307	CONCORD ST	WALKER CREEK	Daylor/Public SSA	GENSEP
249	30	312	CONCORD ST	WALKER CREEK	Daylor/Public SSA	RESCES
249	3	311	CONCORD ST	WALKER CREEK	Daylor/NEW	GENSEP
249	2	315	CONCORD ST	WALKER CREEK	Daylor/Public SSA	GENSEP
249	1	317	CONCORD ST	WALKER CREEK	Daylor/Private SSA	RESCES
240	79	7	GREAT LEDGE LN	WALKER CREEK	OCBZ-RM	GENSEP
240	77	15	GREAT LEDGE LN	WALKER CREEK	Daylor/NEW	Single Home FAST
240	76	8	GREAT LEDGE LN	WALKER CREEK	Daylor/TTK	TTK
240	75	6	GREAT LEDGE LN	WALKER CREEK	Daylor T-5	RESPIT
[illegible]	74	4	GREAT LEDGE LN	WALKER CREEK	SVN	GENSEP
240	73	47	SUMNER ST	WALKER CREEK	OCBZ	GENSEP
240	72	45	SUMNER ST	WALKER CREEK	OCBZ	GENSEP
240	71	322	CONCORD ST	WALKER CREEK	ocbz-RM	GENSEP
240	68	62	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
240	67	53	SUMNER ST	WALKER CREEK	Daylor/Public SSA	GENSEP
240	64	12	GREAT HILL RD	WALKER CREEK	OCBZ-view	GENSEP
240	63	55	SUMNER ST	WALKER CREEK	OCBZ-walk/plans	GENSEP
240	58	51	SUMNER ST	WALKER CREEK	OCBZ-plan	GENSEP
240	39	2	GREAT HILL RD	WALKER CREEK	OCBZ-view	RESCES
240	35	318	CONCORD ST	WALKER CREEK	Daylor/Public SSA	GENSEP
240	34	320	CONCORD ST	WALKER CREEK	Upgrade "99	RSF
240	32	326	CONCORD ST	WALKER CREEK	OCBZ-walk	GENSEP
240	31	77	SUMNER ST	WALKER CREEK	OCBZ-site	RESCES
240	30	71	SUMNER ST	WALKER CREEK	OCBZ-walk	GENSEP
240	29	69	SUMNER ST	WALKER CREEK	OCBZ-walk	GENSEP
240	28	65	SUMNER ST	WALKER CREEK	Daylor/Public SSA	GENSEP
240	27	63	SUMNER ST	WALKER CREEK	ocbz-LW	GENSEP
240	26	1	GREAT HILL RD	WALKER CREEK	Daylor/Public SSA	RESCES
240	25	49	SUMNER ST	WALKER CREEK	Daylor/NEW	GENSEP
240	24	43	SUMNER ST	WALKER CREEK	OCBZ	RESCES
240	23	2	BRAY ST	WALKER CREEK	Daylor T-5	RESFLD
[illegible]	22	40	SUMNER ST	WALKER CREEK	Daylor/Public SSA	RESCES
[illegible]	21	44	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
240	19	46	SUMNER ST	WALKER CREEK	Daylor T-5	2 RESCES
240	17	50	SUMNER ST	WALKER CREEK	Daylor/Public SSA	RESCES
240	15	56	SUMNER ST	WALKER CREEK	OCBZ-walk/plans	GENSEP
240	13	60	SUMNER ST	WALKER CREEK	OCBZ-walk/plans	GENSEP

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
240	12	64	SUMNER ST	WALKER CREEK	Daylor T-5	RESPIT
240	10	66	SUMNER ST	WALKER CREEK	Daylor/Public SSA	RESPIT
240	9	68	SUMNER ST	WALKER CREEK	Daylor/Public SSA	GENSEP
240	7	70	SUMNER ST	WALKER CREEK	Daylor T-5	RESFLD
[illegible]	5	325	CONCORD ST	WALKER CREEK	Daylor/Public SSA	GENSEP
[illegible]	4	323	CONCORD ST	WALKER CREEK	OCBZ-site	GENSEP
240	2	319	CONCORD ST	WALKER CREEK	OCBZ-site	GENSEP
239	32	19R	WALKER ST	WALKER CREEK	Daylor/NEW	RESFLD
239	31	19	WALKER ST	WALKER CREEK	Daylor/Private SSA	RESFLD
239	25	22	WALKER ST	WALKER CREEK	OCBZ-walk	GENSEP
239	24	24	WALKER ST	WALKER CREEK	OCBZ-walk	GENSEP
239	21	21	WALKER ST	WALKER CREEK	OCBZ-site	GENSEP
239	20	1	WALKER CT	WALKER CREEK	OCBZ-walk	GENSEP
239	18	2	WALKER CT	WALKER CREEK	Daylor/Public SSA	RES
239	17	15	WALKER ST	WALKER CREEK	Daylor/Public SSA	RESCES
239	14	17	WALKER ST	WALKER CREEK	OCBZ-walk	GENSEP
239	12	26	WALKER ST	WALKER CREEK	OCBZ-site	GENSEP
237	101	12	MATHIEU HILL RD	WALKER CREEK	Daylor/NEW	RESFLD
237	93	9	MATHIEU HILL RD	WALKER CREEK	Daylor T-5	RESFLD
237	92	7	MATHIEU HILL RD	WALKER CREEK	OCBZ-walk	GENSEP
237	91	5	MATHIEU HILL RD	WALKER CREEK	OCBZ-site	GENSEP
237	90	3	MATHIEU HILL RD	WALKER CREEK	OCBZ-view	GENSEP
237	87	18	LINCOLN ST	WALKER CREEK	Daylor T-5	GENSEP
237	86	16	LINCOLN ST	WALKER CREEK	OCBZ-plans/view	GENSEP
237	85	22	LINCOLN ST	WALKER CREEK	OCBZ-site	GENSEP
237	82	6	MATHIEU HILL RD	WALKER CREEK	Daylor T-5	RESTRN
237	81	30	LINCOLN ST	WALKER CREEK	OCBZ-plans/view	GENSEP
[illegible]	80	1	MATHIEU HILL RD	WALKER CREEK	OCBZ-view	GENSEP
237	78	17	LINCOLN ST	WALKER CREEK	OCBZ-plans/view	GENSEP
237	77	19	LINCOLN ST	WALKER CREEK	Daylor/NEW	GENSEP
237	68	16	WALKER ST	WALKER CREEK	Daylor/Public SSA	GENSEP
237	62	8	WALKER ST	WALKER CREEK	Daylor/Public SSA	RESPIT
237	61	13	WALKER ST	WALKER CREEK	OCBZ-site	GENSEP
237	55	12	LINCOLN ST	WALKER CREEK	Daylor T-5	2 SYSTEMS
237	54	8	LINCOLN ST	WALKER CREEK	Daylor/NEW	Single Home FAST
237	51	6	LINCOLN ST	WALKER CREEK	Daylor/Public SSA	RESCES
236	99	2	GREAT LEDGE LN	WALKER CREEK	Daylor/Public SSA	RESFLD
236	98	25	SUMNER ST	WALKER CREEK	ND	GENSEP
236	94	7	OLD BRAY ST	WALKER CREEK	OCBZ-plans/view	GENSEP
236	91	14	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	GENSEP
236	90	10	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	GENSEP
236	88	4	OVERLOOK AV	WALKER CREEK	Daylor T-5	RESCES
236	70	1	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	RESCES
236	69	5	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	RESCES
236	68	9	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	RESPIT
236	67	11	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	Shared
236	66	11R	OVERLOOK AV	WALKER CREEK	OCBZ-walk	Shared
236	59	13	OVERLOOK AV	WALKER CREEK	OCBZ-walk	RESCES
236	57	17	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	RESCES
[illegible]6	53	20	OVERLOOK AV	WALKER CREEK	OCBZ-site	GENSEP
[illegible]	52	16	OVERLOOK AV	WALKER CREEK	OCBZ-Rose	RESCES
236	50	6	OVERLOOK AV	WALKER CREEK	Daylor/NEW	RSF
236	48	2	OVERLOOK AV	WALKER CREEK	Daylor/Public SSA	RESCES
236	37	11	LINCOLN ST	WALKER CREEK	Daylor/Public SSA	RESCES
236	33	4	SUMNER ST	WALKER CREEK	OCBZ-site	RESCES

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
236	32	10	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
236	30	14	SUMNER ST	WALKER CREEK	Daylor/NEW	RESFLD
236	29	16	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
236	27	20	SUMNER ST	WALKER CREEK	Daylor T-5	RESPIT
	23	28	SUMNER ST	WALKER CREEK	OCBZ-site-BZ	GENSEP
[illegible]6	22	30	SUMNER ST	WALKER CREEK	Daylor T-5	GENSEP
236	21	9	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
236	20	11	SUMNER ST	WALKER CREEK	OCBZ-RM	GENSEP
236	18	27	SUMNER ST	WALKER CREEK	Daylor T-5	RESPIT
236	17	29	SUMNER ST	WALKER CREEK	OCBZ-site	RESCES
236	16	3	OLD BRAY ST	WALKER CREEK	Daylor T-5	RESPIT
236	14	3R	OLD BRAY ST	WALKER CREEK	OCBZ-site	Shared
236	12	5	OLD BRAY ST	WALKER CREEK	OCBZ-site	GENSEP
236	10	1	BRAY ST	WALKER CREEK	Daylor T-5	GENSEP
236	9	31	SUMNER ST	WALKER CREEK	Daylor/Public SSA	RESCES
236	8	6	OLD BRAY ST	WALKER CREEK	i or o	GENSEP, RES CES
236	7	8	OLD BRAY ST	WALKER CREEK	OCBZ	GENSEP
236	6	10	OLD BRAY ST	WALKER CREEK	ND	RESCES
236	5	39	SUMNER ST	WALKER CREEK	OCBZ-site	GENSEP
236	3	4	WALKER ST	WALKER CREEK	OCBZ-site	GENSEP
236	2	5	WALKER ST	WALKER CREEK	OCBZ	GENSEP
236	1	11	WALKER ST	WALKER CREEK	Daylor/Public SSA	RESCES
227	71	13	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ-plans/view	GENSEP
227	70	5	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ-walk/plans	GENSEP
227	45	7	ABBEY RD	WALKER CREEK	OCBZ-walk	RESCES
227	43	5	ABBEY RD	WALKER CREEK	OCBZ-plans	GENSEP
[illegible]27	25	10	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ-site	GENSEP
	23	11	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ - RK	RESCES
227	22	19	LAWRENCE MOUNTAIN RD	WALKER CREEK	Daylor/NEW	GENSEP
227	20	23	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ-walk	RESCES
227	17	27	LAWRENCE MOUNTAIN RD	WALKER CREEK	OCBZ-plans/view	GENSEP
233	18	45	CRAFTS RD	RUST ISLAND	ND	RESFLD
233	76	21	YE OLDE COUNTY RD	RUST ISLAND	New'94	GENSEP
233	76	21	YE OLDE COUNTY RD	RUST ISLAND	Daylor T-5	GENSEP
233	75	30	YE OLDE COUNTY RD	RUST ISLAND	Daylor/NEW	GENSEP
233	73	11	RUST ISLAND RD	RUST ISLAND	Daylor/NEW	Bioclere
244	7	71	CRAFTS RD	RUST ISLAND	OCBZ-view	GENSEP
244	4	62	CRAFTS RD	RUST ISLAND	Daylor/NEW	RSF
233	50	30	CRAFTS RD	RUST ISLAND	Daylor/NEW	Pressure Dist.
233	48	22	CRAFTS RD	RUST ISLAND	Daylor T-5	RESFLD
233	42	26	YE OLDE COUNTY RD	RUST ISLAND	Daylor/NEW	GENSEP
233	41	38	CRAFTS RD	RUST ISLAND	ND	GENSEP
233	34	44	CRAFTS RD	RUST ISLAND	Daylor/Private SSA	RESCES
233	32	8	RUSS RD	RUST ISLAND	Daylor/NEW	ISF
233	26	61	CRAFTS RD	RUST ISLAND	ND	RESCES
233	25	57	CRAFTS RD	RUST ISLAND	OCBZ-map	GENSEP
233	24	4	NORTH LANDING WY	RUST ISLAND	SVN	RESCES
233	23	3	NORTH LANDING WY	RUST ISLAND	Daylor/Private SSA	RESCES
233	22	7	NORTH LANDING WY	RUST ISLAND	OCBZ-plans/view	RESCES
[illegible]	20	8	COVE WY	RUST ISLAND	SVN	GENSEP
[illegible]	19	47	CRAFTS RD	RUST ISLAND	ND	GENSEP
233	17	41	CRAFTS RD	RUST ISLAND	Daylor/NEW	Pressure Dist.
233	13	37	CRAFTS RD	RUST ISLAND	ND	GENSEP
233	11	39	YE OLDE COUNTY RD	RUST ISLAND	ND	GENSEP
233	10	33	CRAFTS RD	RUST ISLAND	Daylor T-5	GENSEP

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
232	23	65	CRAFTS RD	RUST ISLAND	Daylor/NEW	ISF
232	22	67	CRAFTS RD	RUST ISLAND	ND	RESCES
232	21	69	CRAFTS RD	RUST ISLAND	Daylor/NEW	ISF
232	18	10	NORTH LANDING WY	RUST ISLAND	SVN	RESCES
?	17	10	COVE WY	RUST ISLAND	SVN	GENSEP
2	16	7	COVE WY	RUST ISLAND	SVN	RESCES
232	13	43	YE OLDE COUNTY RD	RUST ISLAND	ND	GENSEP
232	12	44	YE OLDE COUNTY RD	RUST ISLAND	Daylor T-5	RESCES
232	10	52	YE OLDE COUNTY RD	RUST ISLAND	ND	RESCES
232	9	54	YE OLDE COUNTY RD	RUST ISLAND	ND	RESCES
232	8	56	YE OLDE COUNTY RD	RUST ISLAND	Daylor/TTK	TTK
232	7	49	YE OLDE COUNTY RD	RUST ISLAND	OCBZ-map	GENSEP
232	6	47	YE OLDE COUNTY RD	RUST ISLAND	ND	RESCES
233	60	65	CAUSEWAY ST	R-LITTLE RIVER	ND	RESPIT
233	61	51	CAUSEWAY ST	R-LITTLE RIVER	Daylor/Private SSA	GENSEP
234	82	4	CAUSEWAY ST	R-LITTLE RIVER	Daylor T-5	GENSEP
234	75	29	CAUSEWAY ST	R-LITTLE RIVER	Daylor/TTK	TTK
234	48	37	CAUSEWAY ST	R-LITTLE RIVER	Daylor/TTK	TTK
234	43	6	CAUSEWAY ST	R-LITTLE RIVER	OCBZ-site	RESCES
233	66	60	CAUSEWAY ST	R-LITTLE RIVER	OCBZ-DS	GENSEP
233	64	52	CAUSEWAY ST	R-LITTLE RIVER	OCBZ-DS	GENSEP
233	63	50	CAUSEWAY ST	R-LITTLE RIVER	OCBZ-DS	GENSEP
233	47	84	CAUSEWAY ST	R-LITTLE RIVER	Daylor T-5	GENSEP
242	3	11	WHITE'S MOUNTAIN RD	LITTLE RIVER	OCBZ-site	GENSEP
234	89	97	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
234	84	105	CONCORD ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	80	106	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
1	79	8	BECKER CR	LITTLE RIVER	OCBZ-view	RESPIT
234	78	14	BECKER CR	LITTLE RIVER	OCBZ-DS	GENSEP
234	71	76	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	RESPIT
234	70	2	THOMPSON ST	LITTLE RIVER	Daylor/Public SSA	RESCES
234	68	9	BECKER LN	LITTLE RIVER	OCBZ-DS	GENSEP
234	67	7	BECKER LN	LITTLE RIVER	Daylor T-5	RESPIT
234	65	5	BECKER LN	LITTLE RIVER	Daylor T-5	GENSEP
234	64	8	BECKER LN	LITTLE RIVER	OCBZ-DS	GENSEP
234	63	10	BECKER CR	LITTLE RIVER	OCBZ-DS	GENSEP
234	61	101	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
234	60	103	CONCORD ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	59	107	CONCORD ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	58	9	WHITE'S MOUNTAIN RD	LITTLE RIVER	ICBZ	GENSEP
234	57	12	BECKER CR	LITTLE RIVER	OCBZ-view	GENSEP
234	55	7	WHITE'S MOUNTAIN RD	LITTLE RIVER	OCBZ-site	GENSEP
234	54	5	WHITE'S MOUNTAIN RD	LITTLE RIVER	OCBZ-site	GENSEP
234	52	1	WHITE'S MOUNTAIN RD	LITTLE RIVER	Daylor/Public SSA	GENSEP
234	51	109	CONCORD ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	50	17	BECKER CR	LITTLE RIVER	OCBZ-DS	GENSEP
234	49	19	BECKER CR	LITTLE RIVER	Daylor T-5	RESCES
234	46	95	CONCORD ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	45	93	CONCORD ST	LITTLE RIVER	Daylor T-5	GENSEP
1	44	2	CAUSEWAY ST	LITTLE RIVER	Daylor T-5	RESCES
	41	77	CONCORD ST	LITTLE RIVER	Daylor T-5	GENSEP
234	40	75	CONCORD ST	LITTLE RIVER	OCBZ-site	RESCES
234	39	73	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	RESFLD
234	34	15	SAVILLE RD	LITTLE RIVER	OCBZ-BZ	GENSEP
234	32	13	SAVILLE RD	LITTLE RIVER	OCBZ-site	RESCES

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
234	31	14	SAVILLE RD	LITTLE RIVER	OCBZ-site	RESCES
234	30	12	SAVILLE RD	LITTLE RIVER	OCBZ-site	GENSEP
234	29	10	SAVILLE RD	LITTLE RIVER	OCBZ-site	GENSEP
234	28	57	CONCORD ST	LITTLE RIVER	OCBZ-site	RESCES
1	27	55	CONCORD ST	LITTLE RIVER	OCBZ-site-BZ	GENSEP
4	24	70	CONCORD ST	LITTLE RIVER	Daylor T-5	GENSEP
234	22	1	THOMPSON ST	LITTLE RIVER	OCBZ-site	RESCES
234	21	4	THOMPSON ST	LITTLE RIVER	Daylor/Public SSA	RESPIT
234	20	8	THOMPSON ST	LITTLE RIVER	OCBZ-DS	GENSEP
234	19	5	THOMPSON ST	LITTLE RIVER	Daylor/TTK	GENSEP
234	18	20	BECKER CR	LITTLE RIVER	OCBZ-view	GENSEP
234	17	6	BECKER LN	LITTLE RIVER	OCBZ-DS	GENSEP
234	16	3	BECKER CR	LITTLE RIVER	OCBZ-view	GENSEP
234	15	3	BECKER LN	LITTLE RIVER	Daylor T-5	GENSEP
234	14	1	BECKER LN	LITTLE RIVER	OCBZ-DS	GENSEP
234	13	1A	BECKER LN	LITTLE RIVER	OCBZ-view	GENSEP
234	12	86	CONCORD ST	LITTLE RIVER	Daylor T-5	RESPIT
234	10	88	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
234	9	4	BECKER CR	LITTLE RIVER	Daylor/Public SSA	GENSEP
234	8	90	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
234	5	96	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
234	4	102	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
234	1	108	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP +RESCES
230	120	48	PRESSON POINT RD	LITTLE RIVER	Daylor/TTK	TTK
230	119	50	PRESSON POINT RD	LITTLE RIVER	Daylor/Private SSA	RESCES
229	100	11	WEST PARISH LN	LITTLE RIVER	OCBZ-site	GENSEP
229	99	25	PRESSON POINT RD	LITTLE RIVER	OCBZ-site	GENSEP
9	97	10	NEW WAY LN	LITTLE RIVER	OCBZ-view	GENSEP
229	96	8	NEW WAY LN	LITTLE RIVER	Daylor T-5	RESPIT
229	94	6	SAVILLE RD	LITTLE RIVER	OCBZ-map	GENSEP
229	93	9	SAVILLE RD	LITTLE RIVER	OCBZ-site	GENSEP
229	92	3	LANDING RD	LITTLE RIVER	Daylor T-5	RESTRN
229	91	18	KENT RD	LITTLE RIVER	OCBZ-plans	GENSEP
229	90	6	KENT RD	LITTLE RIVER	Daylor/NEW	GENSEP
229	87	36	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	85	23	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	82	7	SAVILLE RD	LITTLE RIVER	OCBZ-site	GENSEP
229	80	53	CONCORD ST	LITTLE RIVER	OCBZ-site	RESCES
229	79	51	CONCORD ST	LITTLE RIVER	Daylor/NEW	RESFLD
229	78	47	CONCORD ST	LITTLE RIVER	OCBZ	GENSEP
229	77	43	CONCORD ST	LITTLE RIVER	Daylor T-5	RESPIT
229	76	41	CONCORD ST	LITTLE RIVER	ocbz	GENSEP
229	75	37	CONCORD ST	LITTLE RIVER	ocbz	GENSEP
229	74	35	CONCORD ST	LITTLE RIVER	ocbz-view	RESCES
229	73	33	CONCORD ST	LITTLE RIVER	ocbz-view	GENSEP
229	72	25	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	RESCES
229	70	45	PRESSON POINT RD	LITTLE RIVER	OCBZ-site	GENSEP
229	69	35	PRESSON POINT RD	LITTLE RIVER	OCBZ-site	RESCES
229	68	21	PRESSON POINT RD	LITTLE RIVER	OCBZ-site	GENSEP
9	67	21	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	RESCES
	65	5	LANDING RD	LITTLE RIVER	OCBZ-view	GENSEP
229	63	7	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
229	54	5	WEST PARISH LN	LITTLE RIVER	OCBZ-view	RESCES
229	53	7	WEST PARISH LN	LITTLE RIVER	OCBZ-view	RESCES
229	52	9	WEST PARISH LN	LITTLE RIVER	OCBZ-view	GENSEP

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
229	50	13	KENT RD	LITTLE RIVER	OCBZ-view	RESCES
229	49	15	KENT RD	LITTLE RIVER	Daylor/NEW	RESFLD
229	48	11	KENT RD	LITTLE RIVER	OCBZ-DS	GENSEP
229	47	17	LANDING RD	LITTLE RIVER	OCBZ-view	GENSEP
)	29	4	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
_29	27	6	CONCORD ST	LITTLE RIVER	OCBZ-site	RESCES
229	25	6R	CONCORD ST	LITTLE RIVER	ICBZ	RESCES
229	22	10	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	19	12	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
229	18	14	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
229	17	16	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
229	16	18	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	14	20	CONCORD ST	LITTLE RIVER	OCBZ-view	RESCES
229	13	22	CONCORD ST	LITTLE RIVER	ocbz-view	RESCES
229	12	26	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	10	30	CONCORD ST	LITTLE RIVER	Daylor T-5	RESPIT
229	9	32	CONCORD ST	LITTLE RIVER	Daylor T-5	RESCES
229	8	34	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	7	38	CONCORD ST	LITTLE RIVER	OCBZ-site	GENSEP
229	6	40	CONCORD ST	LITTLE RIVER	Daylor T-5	RESTRN
229	5	44	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
228	38	6	MT ANN RD	LITTLE RIVER	OCBZ-site	GENSEP
228	36	8	MT ANN RD	LITTLE RIVER	OCBZ	RESCES
228	34	3	MT ANN RD	LITTLE RIVER	OCBZ-view	GENSEP
228	33	9	NEW WAY LN	LITTLE RIVER	OCBZ-view	SEP&CESS
228	32	7	NEW WAY LN	LITTLE RIVER	OCBZ-view	GENSEP
_8	31	5	NEW WAY LN	LITTLE RIVER	OCBZ-view	GENSEP
	44	20	NEW WAY LN	LITTLE RIVER	OCBZ-view	GENSEP
221	42	1	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	41	15	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	39	20	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	38	18	LAROSE AV	LITTLE RIVER	Daylor T-5	RESCES
221	37	16	LAROSE AV	LITTLE RIVER	OCBZ-view	RESCES
221	36	14	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	35	12	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	34	10	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	33	8	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	32	5	LAROSE AV	LITTLE RIVER	OCBZ-view	RESCES
221	31	7	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	30	9	LAROSE AV	LITTLE RIVER	OCBZ-view	RESCES
221	29	11	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	28	13	LAROSE AV	LITTLE RIVER	OCBZ-view	GENSEP
221	27	17	LAROSE AV	LITTLE RIVER	Daylor/TTK	TTK
221	25	32	NEW WAY LN	LITTLE RIVER	OCBZ-site	GENSEP
221	23	30	NEW WAY LN	LITTLE RIVER	OCBZ-view	RESCES
221	22	28	NEW WAY LN	LITTLE RIVER	OCBZ-view	GENSEP
221	21	26	NEW WAY LN	LITTLE RIVER	OCBZ-view	RESCES
221	20	3	LAROSE AV	LITTLE RIVER	OCBZ-view	RESCES
221	19	14	NEW WAY LN	LITTLE RIVER	OCBZ-view	RESCES
	18	11	NEW WAY LN	LITTLE RIVER	OCBZ-site	RESCES
	17	4	MT ANN RD	LITTLE RIVER	Daylor T-5	RESTRN
221	15	15	NEW WAY LN	LITTLE RIVER	Daylor/Public SSA	RESCES
221	13	21	NEW WAY LN	LITTLE RIVER	OCBZ-site	RESCES
221	12	23	NEW WAY LN	LITTLE RIVER	OCBZ-site	GENSEP
220	169	3	KENT RD	LITTLE RIVER	OCBZ-view	GENSEP

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
220	168	22	LAUREL ST	LITTLE RIVER	Daylor T-5	GENSEP
220	147	5	LAUREL ST	LITTLE RIVER	Daylor/Public SSA	RESCES
220	143	19	LAUREL ST	LITTLE RIVER	Daylor T-5	GENSEP
220	141	24	LAUREL ST	LITTLE RIVER	OCBZ-view	GENSEP
[illegible]0	140	18	LAUREL ST	LITTLE RIVER	OCBZ-view	RESCES
[illegible]0	137	14	LAUREL ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
220	135	12	LAUREL ST	LITTLE RIVER	inspect needed	RESCES
220	134	10	LAUREL ST	LITTLE RIVER	OCBZ-site	RESCES
220	10	6	EVELETH RD	LITTLE RIVER	Daylor/NEW	RES
220	6	28	KENT RD	LITTLE RIVER	Daylor/NEW	GENSEP
220	5	26	KENT RD	LITTLE RIVER	OCBZ-site	GENSEP
220	4	22	KENT RD	LITTLE RIVER	OCBZ-site	RESCES
220	3	20	KENT RD	LITTLE RIVER	Daylor T-5	RESCES
220	1	2	KENT RD	LITTLE RIVER	OCBZ-site	GENSEP
213	60	64	LAUREL ST	LITTLE RIVER	Daylor/NEW	Pressure Dist.
213	59	42A	LAUREL ST	LITTLE RIVER	OCBZ-site	GENSEP
213	58	44	LAUREL ST	LITTLE RIVER	OCBZ-view	RESPIT
213	57	60	LAUREL ST	LITTLE RIVER	OCBZ-plans/view	GENSEP
213	54	56	LAUREL ST	LITTLE RIVER	OCBZ-plans/view	GENSEP
213	53	48	LAUREL ST	LITTLE RIVER	Daylor T-5	RES
213	52	50	LAUREL ST	LITTLE RIVER	Daylor T-5	RESPIT
213	51	52	LAUREL ST	LITTLE RIVER	Daylor T-5	RESFLD
213	50	54	LAUREL ST	LITTLE RIVER	OCBZ-site	GENSEP
213	48	43	LAUREL ST	LITTLE RIVER	Daylor/NEW	GENSEP
213	28	371	MAGNOLIA AV	LITTLE RIVER	Daylor/NEW	RESFLD
213	27	377	MAGNOLIA AV	LITTLE RIVER	OCBZ-DS	RESCES
213	17	2	WALLACE CT	LITTLE RIVER	OCBZ-site	RESCES
[illegible]	15	370	MAGNOLIA AV	LITTLE RIVER	FAIL-icbz	RESCES
213	14	368	MAGNOLIA AV	LITTLE RIVER	FAIL-icbz	GENSEP
213	13	362	MAGNOLIA AV	LITTLE RIVER	Daylor T-5	RESPIT
213	12	358	MAGNOLIA AV	LITTLE RIVER	Daylor T-5	RESPIT
213	10	354	MAGNOLIA AV	LITTLE RIVER	OCBZ	GENSEP
213	6	62	LAUREL ST	LITTLE RIVER	OCBZ-plans/view	GENSEP
213	5	46	LAUREL ST	LITTLE RIVER	Daylor T-5	GENSEP
213	4	42	LAUREL ST	LITTLE RIVER	Daylor T-5	RESCES
213	2	32	LAUREL ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
213	1	30	LAUREL ST	LITTLE RIVER	Daylor/Public SSA	RESCES
229	4	46	CONCORD ST	LITTLE RIVER	Daylor/Public SSA	GENSEP
243	3	48	ATLANTIC ST	JONES RIVER	Daylor T-5	RESFLD
246	10	20	BROOKS RD	JONES RIVER	ocbz- site	GENSEP
247	32	8	BROOKS LN	JONES RIVER	OCBZ-view	RESCES
247	30	4	BROOKS LN	JONES RIVER	ocbz-DS	GENSEP
247	29	2	BROOKS LN	JONES RIVER	ocbz-DS	GENSEP
247	15	7	HUNTER RD	JONES RIVER	ocbz	RESCES
247	14	5	HUNTER RD	JONES RIVER	Daylor/Public SSA	GENSEP
247	13	3	HUNTER RD	JONES RIVER	ocbz	GENSEP
246	57	66	ATLANTIC ST	JONES RIVER	Daylor T-5	RESPIT
246	51	67	ATLANTIC ST	JONES RIVER	OCBZ-site	RESPIT
246	33	70	ATLANTIC ST	JONES RIVER	OCBZ-DS	GENSEP
[illegible]	32	64	ATLANTIC ST	JONES RIVER	OCBZ-site	RESCES
[illegible]	29	7	BROOKS RD	JONES RIVER	ocbz-plan	GENSEP
246	27	9	BROOKS RD	JONES RIVER	OCBZ-site	GENSEP
246	26	11	BROOKS RD	JONES RIVER	OCBZ-site	GENSEP
246	25	13	BROOKS RD	JONES RIVER	PASS-obcz	RESFLD
246	24	15	BROOKS RD	JONES RIVER	Daylor/TTK	TTK

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
246	22	17	BROOKS RD	JONES RIVER	ICBZ	GENSEP
246	21	19	BROOKS RD	JONES RIVER	Daylor T-5	RESPIT
246	20	1	BROOKS LN	JONES RIVER	ocbz - DS	RESCES
246	19	3	BROOKS LN	JONES RIVER	ocbz - DS	GENSEP
3	18	5	BROOKS LN	JONES RIVER	ocbz - DS	RESCES
46	17	2	HUNTER RD	JONES RIVER	ocbz-DS	RESCES
246	16	26	BROOKS RD	JONES RIVER	ocbz - DS	RESCES
246	15	4	HUNTER RD	JONES RIVER	Daylor/NEW	ISF
246	14	24	BROOKS RD	JONES RIVER	ocbz - DS	RESCES
246	8	16	BROOKS RD	JONES RIVER	Daylor/Public SSA	RESCES
246	7	14	BROOKS RD	JONES RIVER	Daylor/TTK	TTK
246	5	10	BROOKS RD	JONES RIVER	Daylor/TTK	TTK
246	4	8	BROOKS RD	JONES RIVER	OCBZ-site	RESCES
246	3	6	BROOKS RD	JONES RIVER	Daylor T-5	RESPIT
246	2	62	ATLANTIC ST	JONES RIVER	Daylor/Public SSA	RESCES
246	1	54	ATLANTIC ST	JONES RIVER	Daylor/Public SSA	RESCES
243	10	49	ATLANTIC ST	JONES RIVER	OCBZ-view	GENSEP
243	7	45	ATLANTIC ST	JONES RIVER	Daylor/NEW	Pressure Dist.
243	6	50	ATLANTIC ST	JONES RIVER	Daylor/Public SSA	RESCES
243	4	46	ATLANTIC ST	JONES RIVER	Daylor/TTK	TTK
243	2	44	ATLANTIC ST	JONES RIVER	OCBZ-view	GENSEP
242	182	21	ATLANTIC ST	JONES RIVER	OCBZ-site	GENSEP
242	181	125	CONCORD ST	JONES RIVER	Daylor/NEW	ISF
242	155	119	CONCORD ST	JONES RIVER	OCBZ-view	GENSEP
242	154	121	CONCORD ST	JONES RIVER	OCBZ-view	GENSEP
242	153	123	CONCORD ST	JONES RIVER	Daylor T-5	GENSEP
242	150	111	CONCORD ST	JONES RIVER	Daylor T-5	GENSEP
2	149	36	VALLEY RD	JONES RIVER	ocbz	RESCES
242	148	6	ATLANTIC ST	JONES RIVER	Daylor T-5	RESTRN
242	147	4	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	RESCES
242	144	113	CONCORD ST	JONES RIVER	ocbz	RESCES
242	142	117	CONCORD ST	JONES RIVER	OCBZ-map	RESCES/OVRFLO
242	141	127	CONCORD ST	JONES RIVER	Daylor/Public SSA	RESPIT
242	137	7	ATLANTIC ST	JONES RIVER	OCBZ-site	GENSEP
242	136	9	ATLANTIC ST	JONES RIVER	OCBZ-site	GENSEP
242	135	11	ATLANTIC ST	JONES RIVER	Daylor T-5	RESPIT
242	134	22	ATLANTIC ST	JONES RIVER	Daylor T-5	RESTRN
242	133	24	ATLANTIC ST	JONES RIVER	OCBZ-site	RESCES
242	132	26	ATLANTIC ST	JONES RIVER	Daylor/Public SSA	RESCES
242	129	30	ATLANTIC ST	JONES RIVER	OCBZ-site	GENSEP
242	128	32	ATLANTIC ST	JONES RIVER	Daylor T-5	RESTRN
242	127	34	ATLANTIC ST	JONES RIVER	OCBZ-view	RESPIT
242	120	7	GULL LN	JONES RIVER	ocbz	RESCES
242	112	82	VALLEY RD	JONES RIVER	ocbz	RESCES
242	111	8	GULL LN	JONES RIVER	ocbz	GENSEP
242	110	33	VALLEY RD	JONES RIVER	ocbz	RESCES
242	109	35	VALLEY RD	JONES RIVER	ocbz	RESCES
242	108	37	VALLEY RD	JONES RIVER	ocbz	RESCES
242	102	49	VALLEY RD	JONES RIVER	ocbz	RESCES
	100	46	VALLEY RD	JONES RIVER	ocbz	RESCES
	96	38	VALLEY RD	JONES RIVER	ocbz	RESCES
242	95	34	VALLEY RD	JONES RIVER	ocbz	RESCES
242	93	53	HILLTOP RD	JONES RIVER	ocbz	RESCES
242	92	55	HILLTOP RD	JONES RIVER	Daylor/TTK	TTK
242	91	57	HILLTOP RD	JONES RIVER	ocbz	RESCES

MAP	LOT	STREET_NO	STREET_NAM	SHED	STATUS	SYS_TYPE
242	89	61	HILLTOP RD	JONES RIVER	ocbz	RESCES
242	86	65	HILLTOP RD	JONES RIVER	ocbz	RESCES
242	81	58	HILLTOP RD	JONES RIVER	ocbz	RESCES
242	79	56	HILLTOP RD	JONES RIVER	ocbz	RESCES
[illegible]	68	50	HILLTOP RD	JONES RIVER	ocbz	RESCES
2	67	32	VALLEY RD	JONES RIVER	ocbz	RESCES
242	66	36	HILLTOP RD	JONES RIVER	ocbz	RESCES
242	64	40	HILLTOP RD	JONES RIVER	Daylor/TTK	TTK
242	60	16	VALLEY RD	JONES RIVER	Daylor/NEW	Micro FAST
242	58	20	ATLANTIC ST	JONES RIVER	OCBZ-site	GENSEP
242	55	14	ATLANTIC ST	JONES RIVER	Daylor T-5	GENSEP
242	52	4	ATLANTIC ST	JONES RIVER	Daylor T-5	RESCES
242	51	2	ATLANTIC ST	JONES RIVER	Daylor/Public SSA	GENSEP
242	36	1	CEDARWOOD RD	JONES RIVER	ICBZ-plans	GENSEP
242	35	3	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	34	5	CEDARWOOD RD	JONES RIVER	Daylor/TTK	TTK
242	33	7	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	32	9	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	31	11	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	30	13	CEDARWOOD RD	JONES RIVER	OCBZ-site	GENSEP
242	28	11	FENLEY RD	JONES RIVER	SVN	GENSEP
242	27	13	FENLEY RD	JONES RIVER	OCBZ-site	GENSEP
242	26	15	FENLEY RD	JONES RIVER	Daylor/Public SSA	RESPIT
242	25	17	FENLEY RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	24	19	FENLEY RD	JONES RIVER	OCBZ-view	GENSEP
242	23	21	FENLEY RD	JONES RIVER	OCBZ-walk	GENSEP
242	22	18	FENLEY RD	JONES RIVER	OCBZ-view	RESPIT
[illegible]	21	16	FENLEY RD	JONES RIVER	OCBZ-view	GENSEP
242	20	14	FENLEY RD	JONES RIVER	ocbz-view	GENSEP
242	19	16	CEDARWOOD RD	JONES RIVER	ICBZ	GENSEP
242	18	14	CEDARWOOD RD	JONES RIVER	ICBZ	GENSEP
242	17	12	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	16	10	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	15	8	CEDARWOOD RD	JONES RIVER	Daylor/Public SSA	GENSEP
242	14	6	CEDARWOOD RD	JONES RIVER	Daylor/NEW	RSF
242	12	136	CONCORD ST	JONES RIVER	Daylor/TTK	TTK
242	11	132	CONCORD ST	JONES RIVER	Daylor T-5	RESCES
242	9	124	CONCORD ST	JONES RIVER	ocbz	RESCES
242	6	118	CONCORD ST	JONES RIVER	ocbz	GENSEP
242	4	116	CONCORD ST	JONES RIVER	ocbz	GENSEP
247	28	25	BROOKS RD	J-FARM CREEK	Daylor T-5	RESCES
247	16	32	BROOKS RD	J-FARM CREEK	Daylor/NEW	RESTRN

Preliminary Estimates on Proposed Priority Sewer Projects

CITY OF GLOUCESTER
West Gloucester Sewer Area
Opinion of Probable Costs of Priority Sewer Projects

No.	Area	Description	FY 08 Cost	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Phase I	Walker Creek and Phase II Little River	Sumner, Walker, Lincoln, Old Bray and part of Woodman Streets; Walker and Andrews Court;; Great Ledge Lane; Abbey and Lawrence Mountain Road; and part of Overlook Avenue. Parts of Concord and Laurel Streets, part s of New Way lane; Mount Ann Roads; Larose and parts of Magnolia Avenue.	$12,720,000					
		Request Loan Authorization		$12,720,000				
		Design/Permitting/Construction Oversight	$2,470,000	$800,000	$640,000	$640,000	$390,000	
		Bid/Award	$25,000		$25,000			
		Construction	$10,225,000		$5,000,000	$5,000,000	$225,000	
		Total	$12,720,000	$800,000	$5,665,000	$5,640,000	$615,000	
		Estimated Dwelling Units	299					
		Estimated Betterment Cost	$40,000 to $45,000					
		Betterment Issued	2010					
Phase II	Jones River	Parts of Concord and Atlantic Street; Gull Lane; Becker, Thompson and White Mountain, Cedarwood, Fenley, Valley, Hilltop, Hunter and parts of Brooks Road; and parts of Brook Lane	$5,350,000					
		Request Loan Authorization				$5,350,000		
		Design/Permitting/Construction Oversight	$1,030,000			$515,000	$257,500	$128,750
		Bid/Award	$25,000				$25,000	
		Construction	$4,295,000				$2,147,500	$2,147,500
		Total	$5,350,000			$515,000	$2,430,000	$2,276,250
		Estimated Dwelling Units	203					
		Estimated Betterment Cost	$25,000 to $30,000					
		Betterment Issued	2011					
		Summary						
		Wastewater Construction Loan Authorization Schedule	$18,070,000	$12,720,000		$5,350,000		
		Draw Down Schedule		$800,000	$5,665,000	$6,155,000	$3,045,000	$2,276,250

Costs shown above are the current opinion of the engineering departm,ent and are subject to many various elements.

Department of Public Works Grinder Pump Regulations & Maintenance Rules

DRAFT

City of Gloucester

ENGINEERING DEPARTMENT
22 Poplar Street
Gloucester, Massachusetts 01930
Telephone 978 281 9773 Fax 978 281 9725

The following rules and regulations shall take effect upon publication in the Gloucester Daily Times. These rules and regulations are also available for inspection by the public at the Engineering Department, 22 Poplar Street, during regular business hours.

GRINDER PUMP REGULATIONS

DRAFT

Preamble: These regulations amend by repealing in total the "Grinder Pump Regulations" as published in the Gloucester Daily Times on October 11, 2001. These regulations are promulgated pursuant to Massachusetts General Law Chapter 83 Section 10 and serve to supplement existing sewer rules and regulations. If any portions of these regulations are inconsistent with any other existing City of Gloucester ordinances or regulations relating to sewers, these regulations shall prevail.

1. ***Options Available Where Grinder Pumps are Required:*** All owners of developed property requiring grinder pumps as determined by the City Engineer will have the opportunity to have a grinder pump provided by the City. Whether a grinder pump is required is dependent upon whether the land by reason of its grade or level or any other cause can not be drained in such sewer and whether a grinder pump would remove this incapacity (MGL Ch 83 Sec 15).

2. ***Election of Option:*** Each owner of a property that is determined to require a grinder pump for connection into the sewer system must sign a statement indicating intent to grant an easement to the City in order for the City to provide and maintain a grinder pump, or an alternative statement indicating that the property owner declines the City's offer to provide a grinder pump on the property as part of the Sewer Project.

   The City of Gloucester will provide the required documents to the property owner for signature by certified mail, return receipt requested. The signed documents must be returned within 30 days from the date of mailing. If these documents are not returned in a timely way, the City will deem the property owner to have declined grinder pump services as provided by the City.

   The City Engineering Department must keep a permanent record of the option as selected by the property owner to help facilitate the future maintenance of City owned grinder pumps.

3. ***Option to Select City Provision of Grinder Pump:*** Upon agreeing to the provision of a grinder pump by the City, property owners must provide an easement for installation of the basin and for maintenance and repair of the pump, discharge line and control panel.

4. ***Option to Decline Provision of Grinder Pump:*** Property owners declining the provision of a grinder pump by the City will sign a document asserting that they understand that they or any subsequent

owner of the property will be responsible for the purchase, installation and operation and maintenance of the pump, control panel and discharge line within the property. Specifications of suitable grinder pumps and associated equipment will be available in the City's Engineering Department for reference by property owners who choose to purchase their own grinder pumps.

5. ***Extent of Work to be Performed by the City and Responsibilities of Owners:*** For each property for which, following the procedures stated herein, a statement has been signed by the property owner requesting the City to provide a grinder pump and granting an easement, the City will purchase - as part of the construction contract - a grinder pump, basin, and control panel. The City's contractor will install the basin and pump discharge line as shown on Diagram A: Delineation of City and Private Property work, dated October 11, 2001. Pumps and control panels will be kept in storage by the City.

   When the property owner is ready to connect to the sewer, the pump and control panel will be provided to the owner. All control panels are required to be installed by the property owner so that it is in close proximity to the pump and is accessible from outside and shall not be installed in the interior of the structure. All costs for any necessary upgrades to the electrical service for the property are the responsibility of the property owner. The property owner must decommission the on-site sewage disposal system at the time they connect to City sewer, at their own expense.

   After obtaining the requisite permits (plumbing, electrical, sewer connection), the homeowner will hire a licensed electrician to install & wire the pump and panel as well as perform any necessary upgrades to the electrical service, and a licensed plumber and City of Gloucester Licensed Drainlayer to make the sewer connection from the pump basin to the household plumbing as shown on Diagram A, dated October 11, 2001. All work must be inspected and approved by appropriate City departments. When the installation has been tested and approved, the City shall assume responsibility for maintenance, repair and replacement of the grinder pump and appurtenances so long as an easement for operation and maintenance has been executed and filed with the City.

6. **Use Violations**: Any person found abusing this system outside of what is considered normal "wear and tear" shall be subject to a penalty of the costs associated with the repair including but not limited to parts, labor and equipment costs per the discretion of the DPW Director or designee.

7. ***Applicability***: These regulations shall apply only to properties requiring grinder pumps within City of Gloucester Sewer Projects as of the effective date of this regulation.

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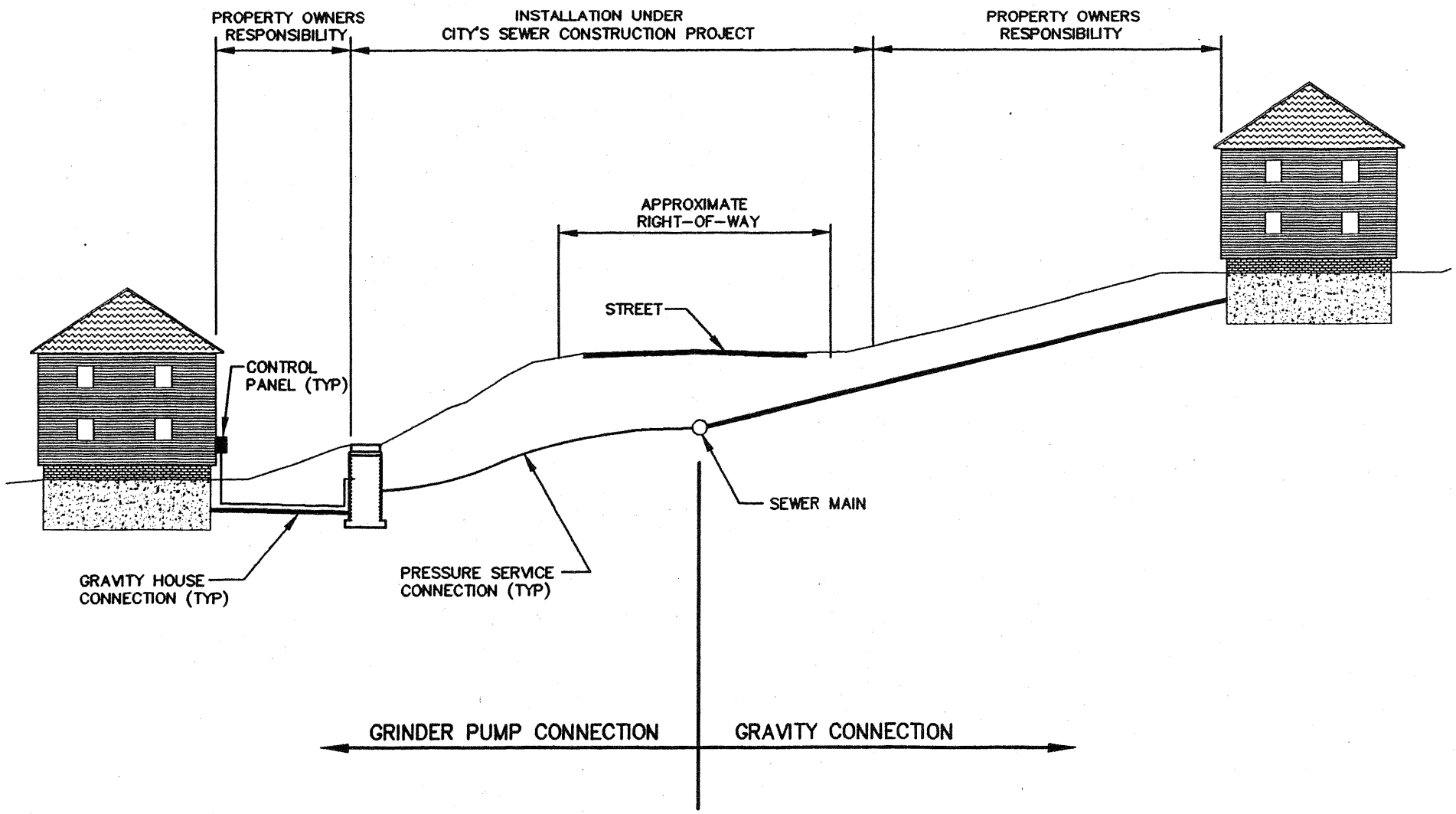

Weston & Sampson Engineers, Inc.

CITY OF GLOUCESTER

Gloucester • Massachusetts • 01930

Department of Public Works

memorandum

TO: Sewer Task Force Members

From: Joseph P. Parisi, Jr., Director of Public Works

Subject: City of Gloucester Grinder Pump Maintenance Responsibilities

Date: March 30, 2005

Recently, Councilor Ab Khambaty and I reviewed DPW record data and budgetary costs for Grinder Pump maintenance currently being performed by the City of Gloucester. The total Grinder Pump maintenance cost was compiled to determine the annual liability for Grinder Pump maintenance and to determine if the costs appear excessive for this maintenance function.

A review of the records indicated that the City maintains approximately 354 Grinder Pumps currently in service throughout the City and will shortly assume another 62 Grinder Pumps in the Little River Sewer Extension Project. Grinder Pump maintenance is currently performed as part of the Sewer Treatment Plant Operations and Maintenance Contract with Earth Tech. The City has allocated a $30,000 budget for Grinder Pump replacements as well as parts replacements for rebuilds and other miscellaneous repairs. Past experience with this account indicates that this is a sufficient annual amount for the 354 Grinder Pumps. Labor costs associated with Grinder Pump maintenance is not specifically segregated from the overall labor costs of the O&M Contract, but is estimated to be no more than 50% of a full time mechanics salary and associated benefits, office support and mark up for the O&M Contract. An estimated amount of $40,000 is used for this analysis. An additional labor cost for City staff involvement of Grinder Pump maintenance is estimated to be another $10,000. The total of all these amounts allocated for Grinder Pump maintenance is $80,000 annually.

The cost per unit calculations are as follows:

$$\frac{\$80{,}000 \text{ Annual Cost}}{354 \text{ Units}} = \$226 \text{ Dollars/Unit Annually}$$

With the addition of 62 more Grinder pumps from the Little River Project, the annual maintenance would most likely have to be increased as well as additional allocation of labor cost totaling approximately $14,000 bringing the total cost to $94,000 annually. Future sewer extensions conducted by the City will inevitably require additional Grinder Pump installations

when cost analysis are performed. Additional maintenance responsibilities for these Grinder Pumps should proportionately increase the costs as well.

Finally, there are approximately 151 privately maintained Grinder Pumps throughout the City that were not installed in conjunction with City Sewering Projects. It is assumed that these Grinder Pumps will continue to be maintained privately. If they are to be incorporated into the maintenance requirements of the system, increases to the budget would also need to be made to accommodate this new work load.

CC:

Title 5 Septic System Informational Items

title 5 septic systems

Buying or Selling Property with an On-Site System

In order to ensure that on-site systems (conventional septic systems, cesspools, and innovative/alternative systems) are protective of human health and the environment, Title 5 generally requires that systems be inspected when the property is sold. This information sheet provides basic details on property transfer requirements, but information provided here is not intended as legal advice to buyers or sellers.

For more details on system inspections themselves, see On-Site System Inspections.

When is an inspection required?
How long is an inspection valid?
Inspection requirements for specific transfers
Inspections for new construction and upgrades
Title changes that do not require an inspection
Responsibility for obtaining the inspection and submitting results
Buyers' rights in property transfers

When is an inspection required?

In general, Title 5 requires an inspection at the time of property transfer:

- When a property is sold to new owners, or there otherwise is a transfer of title to new owners, with certain exceptions.

  In July 2004, Massachusetts General Laws Chapter 21A Section 13 was changed as follows:

  "The department shall not require an inspection of a system for the treatment and the disposal of sanitary sewage below the ground surface if the transfer is of residential real property, and is between the following relationships: (1) between current spouses; (2) between parents and their children; (3) between full siblings; and (4) where the grantor

transfers the real property to be held in a revocable or irrevocable trust, where at least one of the designated beneficiaries is of the first degree of relationship to the grantor".

Contact Ronald White at DEP with questions:
Ronald.White@state.ma.us (617) 292-5790.

- When properties are divided or combined.

Even if there is not a sale or transfer of title, Title 5 requires an inspection when there is a change in use or an expansion of the facility. For example, conversion of a retail store to a restaurant requires an inspection. See On-Site System Inspections for details.

up

How long is an inspection valid?

For most property transfers, the inspection must occur within two years prior to the time of transfer. Exceptions to this requirement are:

- If inclement weather conditions prevent inspection at the time of transfer, the inspection must occur as soon as weather permits, but in no event later than six months after the transfer, provided that by the time of transfer the seller notifies the buyer in writing of the requirements in 310 CMR 15.300 - 305 for inspection and upgrade.
- If a system has been pumped annually since its inspection, and pumping records are available, the inspection is valid for three years.

If an inspection was conducted within the two-year timeframe, the inspection will fulfill the inspection requirement for more than one transfer of title, and does not need be repeated within the two-year period.

up

Inspection requirements for specific transfers

1) Transfers between family members: In July 2004, Massachusetts General Laws Chapter 21A Section 13 was changed as follows: "The department shall not require an inspection of a system for the treatment and the disposal of sanitary sewage below the ground surface if the transfer is of residential real property, and is between the following relationships: (1) between current spouses; (2) between parents and their children; (3) between full siblings; and (4) where the grantor transfers the real property to be held in a revocable or irrevocable trust, where at least one of the designated beneficiaries is of the first degree of relationship to the grantor".

Contact Ronald White at DEP with questions:
Ronald.White@state.ma.us (617) 292-5790.

2) Foreclosure or deeds in lieu of foreclosure: Within two years before or six months after the execution of the memorandum of sale or delivery of the deed in lieu of foreclosure to the foreclosing institution or the loan servicer. An inspection conducted up to three years before the time of transfer may be used if the inspection report is accompanied by system pumping records demonstrating that the system has been pumped at least once a year during that time.

3) Tax taking by the federal, state, or municipal government: Inspection of the system must occur within two years prior to transfer by governmental entity to buyer or within six months after the expiration of the right of redemption, provided that the governmental entity notifies the buyer in writing of the requirements of 310 CMR 15.300 -5.305 for inspection and upgrade. An inspection conducted up to three years before the time of transfer may be used if the inspection report is accompanied by system pumping records demonstrating that the system has been pumped at least once a year during that time.

4) Levy of execution that results in a conveyance of property: Within two years prior to officer's deed of debtor's interest to buyer or within six months after the expiration of the right of redemption, provided that the officer notifies the buyer in writing of the requirements of 310 CMR 15.300-15.305 for inspection and upgrade. An inspection conducted up to three years before the time of transfer may be used if the inspection report is accompanied by system pumping records demonstrating that the system has been pumped at least once a year during that time.

5) Bankruptcy: Within two years prior to transfer by bankruptcy trustee to buyer or within six months after the transfer, provided that the debtor notifies the buyer in writing of the requirements of 310 CMR 15.300-5.305 for inspection and upgrade, if necessary. An inspection conducted up to three years before the time of transfer may be used if the inspection report is accompanied by system pumping records demonstrating that the system has been pumped at least once a year during that time.

6) Sale of a condominium unit or condominiums: Condominiums with five or more units - all systems must be inspected every three years. Condominiums with fewer units must either inspect all systems every three years, or the system serving the unit being transferred must be inspected within two years prior to transfer. If weather conditions prevent inspection at the time of transfer, the inspection must occur as soon as weather permits, but in no event later than six months after the transfer, provided that the buyer is notified in writing of the requirements in 310 CMR 15.300-15.305 for inspection and upgrade.

up

Inspections for new construction and upgrades

Inspections are not required for new construction or for upgrades. The Certificate of Compliance from the local Board of Health (or DEP in the case of state and federal facilities and large systems), which must be obtained upon completion of a new system or a system upgrade, excludes the system from the inspection requirement for any transfer of title within the next two years.

up

Title changes that do not require an inspection

Several types of property transfers do not require an inspection:

- Transfers between family members: In July 2004, Massachusetts General Laws Chapter 21A Section 13 was changed as follows: "The department shall not require an inspection of a system for the treatment and the disposal of sanitary sewage below the ground surface if the transfer is of residential real property, and is between the following relationships: (1) between current spouses; (2) between parents and their children; (3) between full siblings; and (4) where the grantor transfers the real property to be held in a revocable or irrevocable trust, where at least one of the designated beneficiaries is of the first degree of relationship to the grantor".Contact Ronald White at DEP with questions: Ronald.White@state.ma.us (617) 292-5790.
- Refinancing a mortgage or similar financial instrument, whether or not the lending agency remains the same;
- Taking of a security interest in a property, e.g., issuance of a mortgage;
- Appointment of, or a change in, a guardian, conservator, or trustee;
- Change in the form of ownership among the same owners, such as placing the property within a family trust of which the owners are the sole, present beneficiaries, or changing the proportionate interests among a group of owners or beneficiaries;
- Any other change in ownership or the form of ownership where NO NEW parties are introduced (e.g., from spouses jointly or as tenants by the entirety to one spouse either for estate planning purposes or as part of a divorce settlement or court order; from joint ownership to nominee or business trust or into limited or general partnership);
- Owner of the property or person acquiring title has signed an enforceable agreement with the Board of Health to upgrade the system or to connect the facility to a sanitary sewer or a shared system within two years following the transfer of title, provided that such agreement has been disclosed and is binding on subsequent owners;
- Property is subject to a comprehensive local plan of on-site septic system inspection approved in writing by DEP and administered by a local or regional government; and the system has been inspected at the most recent time required by the plan.

up

Responsibility for obtaining the inspection and submitting results

The property owner or facility operator is generally responsible for obtaining an inspection of the system. Prior to the transfer of title, however, the parties may contractually allocate responsibility for the inspection, provided that such inspection occurs within the specified timeframes. An inspection must be conducted by a DEP-approved System Inspector. Click here for lists of System Inspectors residing in Massachusetts and Inspectors residing out-of-state.

The System Inspector must record the inspection results on the DEP-approved inspection form and submit the form, within 30 days of the inspection. In most cases, the inspection report is submitted to the local Board of Health.

In some cases, inspection reports must be submitted to authorities other than the Board of Health:

- Inspection reports for State and Federal facilities must be submitted to the DEP instead of the local Board of Health.
- Reports for large systems and shared systems must be submitted to both the local Board of Health and DEP.

up

Buyers' rights in property transfers

Title 5 requires that a copy of the inspection report be provided to the buyer or other person acquiring title to the property served by the system. The inspection is intended to provide sufficient information to make a determination as to whether or not the system in its current condition is adequate to protect public health and the environment. ***The inspection, however, is not a guarantee that the system will continue to function adequately and is not a guarantee that the system will not fail at a later date.***

If you have a complaint about the results of an inspection, contact your regional DEP office and speak to the staff responsible for Title 5. DEP will review your complaint and determine if further action is required. If you receive an inspection report that appears to have been altered or contains false or misleading information, call the Massachusetts Environmental Strike Force at (617) 556-1000 or toll free at 1-888-VIOLATE (1-888-846-5283).

up

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Governor, Mitt Romney
Lieutenant Governor, Kerry Healey
Commissioner of Revenue, Alan LeBovidge

Personal Income Tax - Credits

Real Estate Tax Credit for Persons Age 65 and Older - Tow that may not take the 50% Water and Sewer Use Charges:

Generally, cities and towns with municipal water and sewer systems issue an annual from the municipal or district water /sewer department. This bill is sent separately fror fiscal year real estate bills. Current water and sewer use charges are not shown on th real estate tax bill. It is only when a water/sewer bill is delinquent that it is added to a bill in most communities (city or town must have adopted G.L. c. 40, ss. 42A-F and C 83, ss. 16A-G). If delinquent charges are added to the tax bill, the charges become p of the tax and constitute a lien. The provisions of the circuit breaker relate to current sewer/use charges.

The water and sewer use charge represents both capital debt costs and ongoing operational costs of the system; taxpayer bills are based on usage. Generally, taxpay are allowed to include 50% of the total water and sewer charges paid when calculatir the circuit breaker property tax payment. This percentage is meant to approximate th portion of the water and sewer use charge attributable to capital debt service.

However, the legislature, in 1993, added a provision to Prop 2 1/2 that allows communities to shift either all or a portion of water and sewer capital costs paid throu user charges for service from their water and sewer bill to their real estate tax bill out the levy limit. Electing communities include water and sewer capital debt service cost part of the real estate tax bill issued to residents. Communities that have elected this treatment are Arlington, Avon, Easthampton, Hadley, Hatfield, Webster, and Winches Thus, in those communities, the amount of sewer and water charges allowed in calculating the credit is already included in these taxpayers' real estate tax bill.

Betterments may be added if directly connected to either the construction, repair an maintenance of a water and sewer system, including sewage treatment plants.

Cost to pump septic tank does not qualify as water and sewer use charge since private cleaning company performs the cleaning and it is not a charge levied by a city town.

However, charges from a town sewage treatment facility (town health departmen for the processing of septic tank waste and the discharging of it as a liquid is allowed since amount is levied by a city or town.

Return to Personal Income Tax Issues

Directive 01-6

Income

The Title 5 Credit and State Mandated Sewer Connections

DIRECTIVE:

Technical Information Release 99-5 allowed taxpayers who repair or replace a failed septic system pursuant to a federal court order, consent decree, or similar mandate from a federal court of competent jurisdiction to take the Title 5 personal income tax credit. This Directive extends the Title 5 personal income tax credit to taxpayers who repair or replace a failed septic system pursuant to an Administrative Consent Order from the Massachusetts Department of Environmental Protection, a Massachusetts state court order, consent decree, or similar mandate from a state court of competent jurisdiction.

CLAIMING THE CREDIT:

In order to claim the credit a taxpayer must obtain a verification letter from the city or town in lieu of the Certificate of Compliance. See 310 CMR 15.021; TIRs 97-12 and 99-5. The verification letter must state that the taxpayer is subject to an Administrative Order or state court mandate to connect to the city or town sewer system, the date the taxpayer's sewer connection was completed, and that the "abandonment" of the taxpayer's septic system was undertaken in accordance with the Title 5 regulation. See 310 CMR 15.354.(1)

The credit is generally available to eligible taxpayers beginning in the tax year in which the work required to repair or replace a septic system is "completed." See G.L. c. 62, Â§ 6(i); TIR 97-12. For purposes of this Directive, that year is the year stated in the verification letter. Taxpayers claiming the Title 5 credit pursuant to this Directive must attach a copy of the verification letter to Schedule SC when filing their Form 1 or Form 1-NR/PY.

August 10, 2001

DD 01-6

[Return to Online Legal Library]

Footnotes:

1. A taxpayer who is required (but not by Administrative Order, or federal or state court order) to connect his/her septic system to the city or town sewer system must have his/her septic system inspected prior to the sewer hook-up in order to determine the taxpayer's eligibility for the Title 5 credit. See TIR 97-12. (return to text)

Personal Income Business Information Tax Professionals
Online Services Links

Division of Local Services Child Support Enforcement
Underground Storage Tank Program

Sewer Task Force Charge

City Hall
Nine Dale Avenue
Gloucester, MA 01930

TEL 978-281-9700
FAX 978-281-9738
jbell@ci.gloucester.ma.us

CITY OF GLOUCESTER

OFFICE OF THE MAYOR

memorandum

TO: Joe Parisi, DPW Director
Dale Brown, Community Development Director
David Knowlton, City Engineer
Linda Lowe, City Attorney
Tom Moses, CFO
Jack Vondras, Public Health Agent
David Sargent, Sanitarian

FROM: Jim McKenna, Administrative Assistant

DATE: October 20, 2004

SUBJECT: Sewer Task Force

Pursuant to Mayor Bell's request to develop strategies regarding wastewater options for those areas of the City that are currently under regulatory pressures to comply with Title V, I would like to convene a group of key individuals or designees from various departments to assist in an examination of the following:

1. Per the Daylor Study, there remain two areas of critical concern in Ward 5 that appear to warrant specific attention:

   A.) Concord Street/Rust Island/Fenley etc.
   B.) Walker Creek Corridor etc.

Our task will be to analyze the particular aspects of each of these areas of concern, and to formulate recommendations on wastewater disposal options.

2. In addition to this issue, the group will need to look at two other issues as well:

   A.) Whether or not the City can, or should, continue to fund the 25% contribution to any projects going forward;
   B.) Possible revisions to our private sewer extension rules and regulations to provide clarity on issues of interpretation and applicability.

This task force may from time to time be required to hear presentations from concerned citizens in these areas and, if possible, reflect these concerns in our recommendations to the Mayor. Our goal will be to complete this project and issue final recommendations to the Mayor. I am hopeful that the level of effort required to complete this project will be no greater than eight meetings (or 24 working hours) and that this project will be concluded no later than the end of January 2005.

Please indicate via e-mail to Nanci Virgilio whether you or your designee will participate in this important effort and to confirm your attendance at these meetings. We have scheduled these meetings from **10:00 AM - Noon in the 3rd floor conference room on the following Thursdays:**

Nov. 4
Nov. 18
Dec. 2
Dec. 16
Jan. 6
Jan. 13
Jan. 20
Jan. 27

Please see the attached draft meeting topic schedule in order to assist you in preparing for these meetings. Thank you for your cooperation.

nlv

cc: Mayor John Bell
Councillor Abdullah Khambaty

Sewer Task Force
Meeting Topic Schedule

Nov. 4 Concord Street
- Status & inventory of properties
- Daylor Report
- Other Issues

Nov. 18 Concord Street Draft Recommendations

Dec. 2 Walker Creek Area
- Status & inventory of properties
- Daylor Report
- Other Issues

Dec. 16 Walker Creek Area Draft Recommendations

Jan. 6 Review of 25% Rule
- Genesis of rule
- Applicability to projects
- Affordability

Jan. 13 Review Private Sewer Regulations

Jan. 20 Review Draft Amendments to Recommendations

Jan. 27 Review and Finalize All Final Recommendations
Issue Report to Mayor

Department of Public Works Step System Information

CITY OF GLOUCESTER

GLOUCESTER • MASSACHUSETTS 01930
ENGINEERING DEPARTMENT
22 POPLAR STREET
PHONE: 978-281-9773 • FAX: 978-281-9725

MEMORANDUM

May 19, 2005

To: Ab Khambaty

From: David H. Knowlton, P.E., City Engineer

Cc: John Bell, Mayor
James McKenna, Administrative Assistant to the Mayor
Joseph Parisi, Director of Public Works
Aaron Cilluffo, Assistant City Engineer

Re: Review of STEP System Control Logic and Specification Development
North Gloucester Sewer Project

This memo is to transmit to you the attached "STEP System Control Logic Position Paper" and "NJUN STEP System Management & Control System" for your review and comment.

We thank you in advance for your effort in assisting the City with this very important project. At your convenience and when you have completed your review, we look forward to meeting with you to discuss this project. In the meantime, if you have any questions, or require additional information, please call.

G:\ENGINEER\presentations\control panel logic and spec transmittal memo 5-19-05.lwp

City of Gloucester, Ma
STEP System Control Logic
Position Paper

May 19, 2005

The City of Gloucester owns and maintains approximately 1200 Septic Tank Effluent Pump (STEP) systems in the northern part of the city. To better control and manage the system and upgrade the control panels, the City has been developing and implementing a remote monitoring system. This system includes replacement of panel controls, installation of local sounds and light alarms, and the development of a central monitoring station, with instantaneous text and e-mail messaging of select alarm conditions to technicians and the overall program manager.

The STEP system is comprised a variety of 1,000 to 2,000 gallon septic tanks, located in City easements on private property. Waste from a dwelling, which varies in quantity from 100 to 500 gallons per day, flows by gravity to the tank where solids settle out and the effluent is discharged, via a pump, to a low pressure sewer main in the street. The pumping system is comprised of a screened pump vault containing discharge piping and a 0.5 horsepower pump with three control floats. A control panel enclosure is located nearby, typically mounted on the side of the house, which contains the STEP controller. The pump in the STEP tank is operated in a pump "on/off" mode, with a three-float system. Alarms are programmed for high water, pump activation (on/off), and a redundant pump-off or low water level alarm. The new controllers, to be retrofitted into the existing control panels, will detect pump failure, high and low liquid levels, clogged filter, stuck float switches, leaking tank, excessive pump cycles and pump run times.

The central computer, or the host system, provides a user-friendly interface between the information being transmitted from the controllers to the technician receiving the data. The host system is also capable of text messaging a technician in the case of a major emergency such as pump failure. Besides using the host

system the field technician can also use a Personal Digital Assistant (PDA) as a diagnostic tool for trouble shooting and general maintenance on the system. Alarms, which need immediate attention such as high float failed to reset, pump over load alarm, or pump stuck-on alarm, a text message is sent to the technician's cell phone along with an e-mail to a designated address.

Remote monitoring of the STEP system will allow the City to monitor and manage the entire system from at one central site, which will save the City time and money. It will also eliminate the uncertainty of which systems are working properly and which ones are not. The controllers can remove the responsibility from the homeowner to respond to alarm lights and buzzers. Because data is sent instantly from the site control panel in detail, it will enable technicians to react to failures quickly and efficiently. The controllers will have logic that is unique to the operational parameters of each individual site, but can be reprogrammed from the central computer with new operational parameters.

NJUN STEP SYSTEM MANAGEMENT & CONTROL SYSTEM

1.1 Introduction

The NJN100 is part of a highly specialized system for managing a residential step system. The system consists of multiple parts:

- A computer-based host system, which is used to monitor and manage the residential lift stations from a central location
- Specialized controllers, which control each residential site. The controllers communicate with the host system periodically using the residential phone line.
- Hand-held Diagnostic Unit. This is a site tool that allows maintenance personnel to view the status of the control system, and make on-site adjustments if necessary.

1.2 System Architecture

Figure 1 below shows the architecture of the overall system.

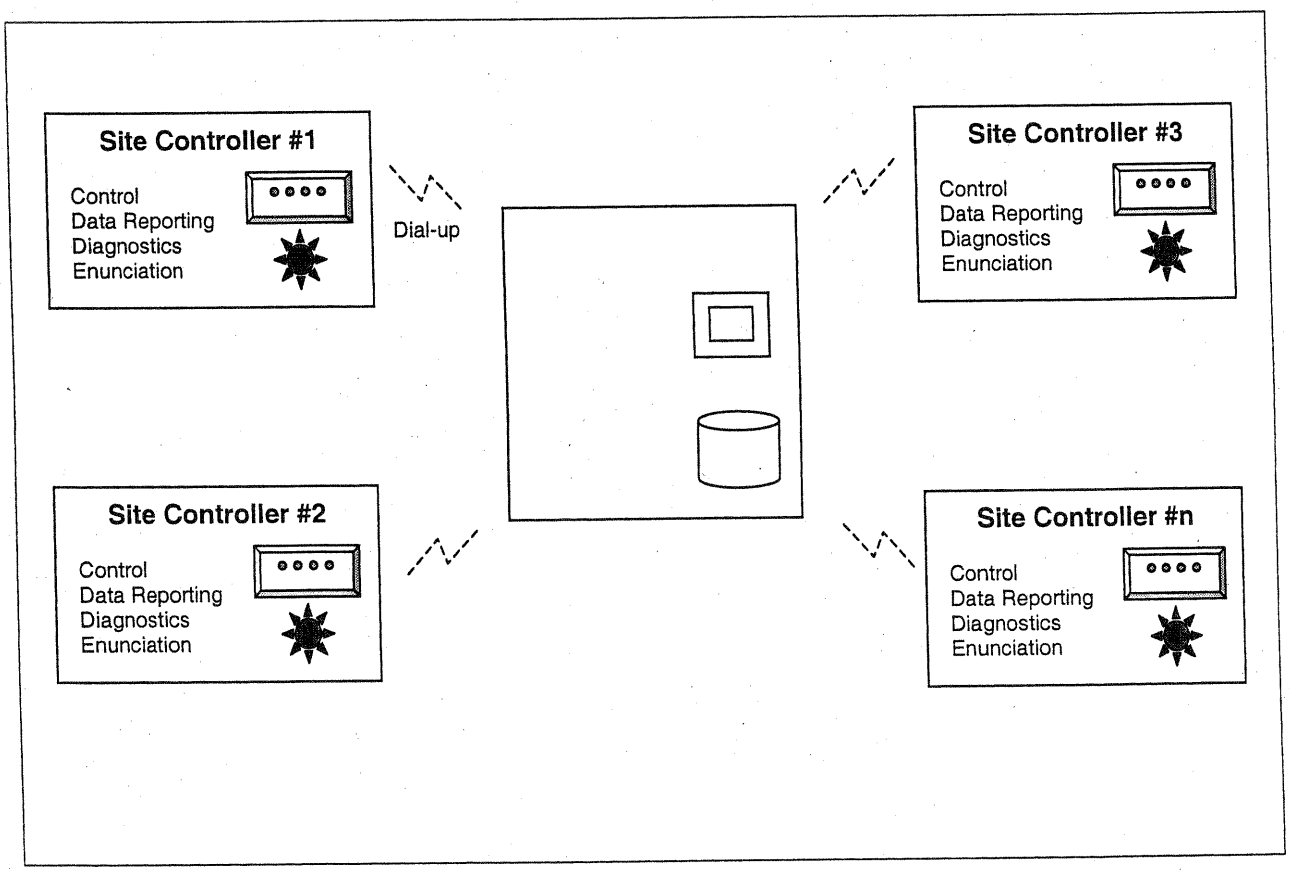


Figure 1 – System Architecture

1.3 Controller Functions

Each component in the control system plays a vital role in the overall success of the system. Individual site controllers are needed to provide reliable control at each residence, but perform much more than simple "on/off" control. Controller functions include the following:

1. Control the Residential Step System. Based on tank level status provided by the float system, activate the pump appropriately to maintain the desired tank levels.
2. Log Operational Data. Operational data is logged by the controller. Some of this data is maintained indefinitely, and some is reset after a report is made to the host.
3. Report Data Regularly to the host. The controller can be configured by the host with a specific call interval (Daily, Day of Week, etc.) and time (12:30am, 1:00am, etc.). This determines exactly when the controller reports data through routine calls with the host.
4. Diagnose Alarm Conditions. The controller is programmed to diagnose abnormal operational conditions. It then acts accordingly – enunciating the issue locally through an alarm and/or buzzer, and enunciating the issue with the host software via a telephone call.
5. Enunciate Alarm Conditions at the Site. The controller can enunciate an alarm condition at the site using a light and/or buzzer. The light and buzzer can be disabled on a per alarm basis through configuration data received from the host.
6. Enunciate Alarm Conditions to the Host. When an alarm condition occurs, the Controller will contact the host via a telephone call to enunciate the condition. Telephone calls can be disabled on an alarm-by-alarm basis.

1.4 Electrical Specifications

The site controllers are a custom design, based in large part around proven PLC technology. There are four main sub-components to the controller:

CPU/Control Board. The controller features a control engine that is identical in circuitry and code to the Horner APG Operator Control Station (OCS) – which is a specialized type of programmable logic controller (PLC). The control engine executes ladder logic code generated by the Cscape™ application development program. Cscape runs on Windows desktop operating systems, but the control engine is a real-time, embedded application. No version of the Windows operating system operates on the site controller itself.

The controller's primary logic program is stored in FLASH memory. As an extra reliability feature, it also features a backup "Safe Mode" program which resides in EEPROM. The Safe mode program will automatically execute if the primary program is non-operational for a set time period. While in Safe mode, the controller has enough logic to monitor the floats, control the pump, and contact the host in order to receive a re-download of its primary logic program. If a controller is executing its backup Safe Mode program, the RUN LED will be blinking rapidly.

In addition to the control engine, the CPU/Control Board features an embedded telephone modem. This modem is based around a Conexant chipset – the kind typically used in residential applications requiring dial-up capability. Other dial-up devices using this or a similar chipset include satellite dish receivers (DSS), and digital video recorders (DVR).

I/O Interface Board. The controller also features a custom I/O board – designed to provide the type of Input/Output connections that are critical to the operation of a residential lift station. The Inputs/Outputs include the following:

- Float Switch Inputs (3)
- Silence Pushbutton Switch Input
- Alarm Light Output
- Alarm Buzzer Output

- Pump Output signal (to solid state relay)
- Pump Current (Amperage) Input

AC Power Supply. The controller features a modular power supply. It supports a wide range AC input (80-250vac, 50/60 Hz). This power supply provides the DC power requirements of the controller circuit boards.

Solid State Relay. The controller utilizes a high quality solid-state relay that drives the lift station pump.

1.5 Installation & Wiring

The controller has been designed to be mounted in a small control enclosure. The control enclosure must be water tight, and the temperature inside the enclosure should not be lower than -40C (-40F). The controller circuit boards have been conformally coated to provide extra resistance against humidity and moisture.

AC power is provided to the unit through a right angle, power cord with ground. All other electrical connections are made through rugged, removable terminal strips which feature reliable spring-clamp mechanisms. The telephone connection is made through a standard residential telephone connector. **Figure 2** shows the location and function of all wiring connections.

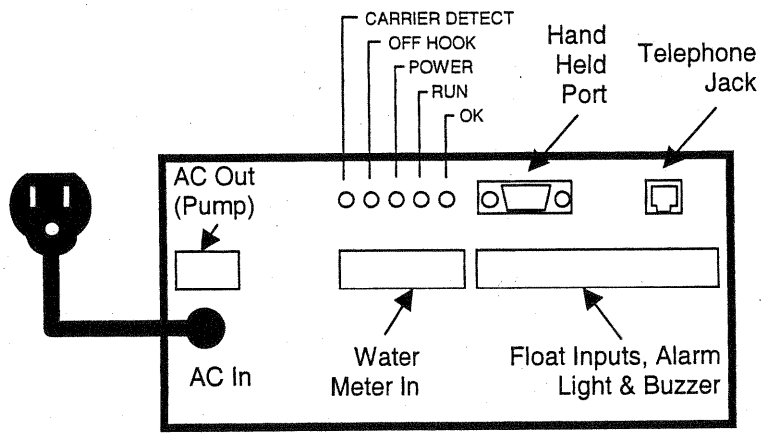


Figure 2. Controller connectors (types & locations).

Figure 3 shows the power and telephone requirements required at the site to support the controller. The controller operates from 110/120vac, 50/60Hz. An appropriate AC circuit should be provided to the control panel per local electrical codes. A 15A circuit breaker / disconnect should be located in the control panel, providing overcurrent protection and a convenient means of disconnecting power from the controller. The electrical ground will also be provided by the AC wiring. **For proper shunting of electrical noise, the ground connection should provide a path to earth of less than 10 ohms.**

If lightning or unstable electrical power is a problem at the site, it is recommended that a Transtector XXX protection device be installed. This device protects both the AC power and telephone connections, and provides an indicator light that indicates the health of the protection device.. If a convenience outlet is pre-installed in the panel, it makes installation of the protection device quick and modular. The Weidmuller YYY mounts on DIN-rail, provides simple installation, and is inexpensive.

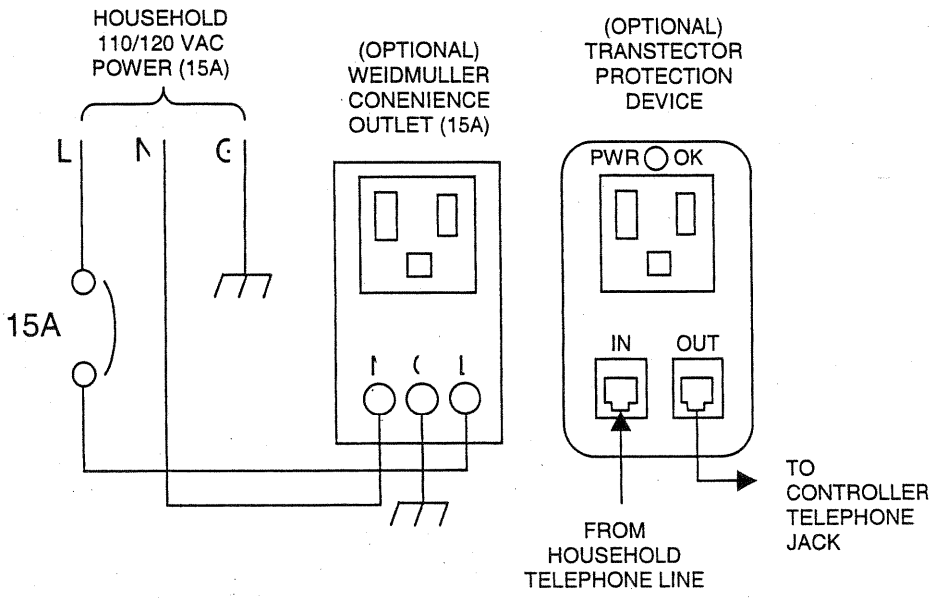


Figure 3. Controller Power and Telephone Requirements.
(optional convenience outlet and protection device shown)

Figure 4 shows the Input/Output connections for the controller. The I/O connectors are manufactured by Weidmuller, and use spring clamp technology. There are three separate I/O connectors. The first I/O connector (from the left) connects to the pump. It provides both a LINE (HOT) and NEUTRAL connection. The second I/O connector interfaces with the Water Meter – through three conductors. The third I/O connector interfaces with the low voltage (24vdc) I/O. This includes the float tree (high, medium/pump, and low), the alarm indicator light, the alarm buzzer, and the silence pushbutton.

In addition to the AC and telephone wiring, the float input wiring can also be exposed to lightning strikes – and the controller features extra onboard tranzorb components to provide an elevated level of supression. This circuitry can only be effective if an adequate earth ground (<10 ohms) is provided to the controller. If a site has regular lightning issues that damage the float inputs – contact the factory for added installation and protection recommendations.

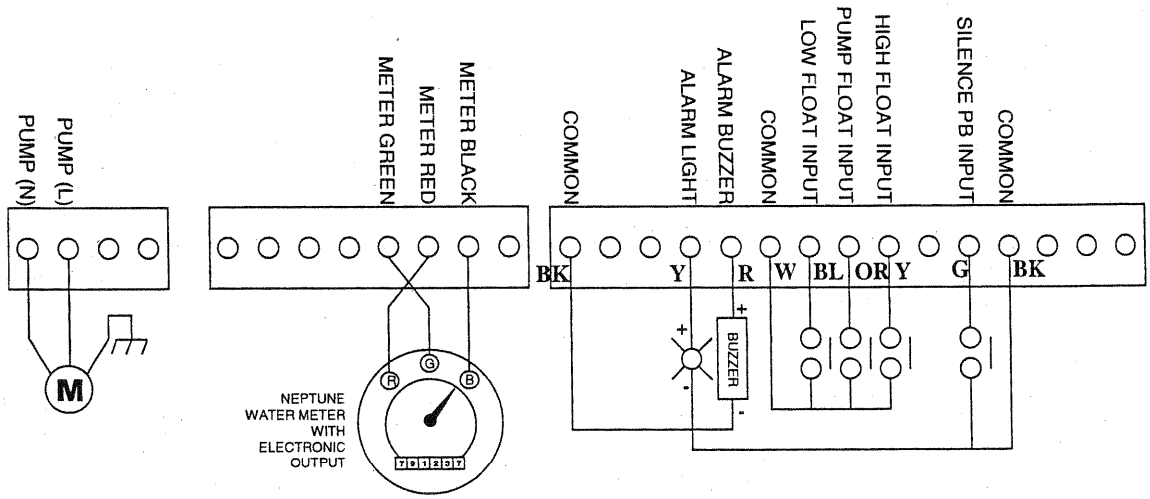


Figure 4. Controller Input/Output Connections.
(all extra terminals shown are "no connect")

1.6 Startup Procedure

After the controller is mounted in the control enclosure, and all the electrical connections have been landed, it is recommended that a startup sequence be executed. This will validate all the connections, and that the control components (including the controller) are operational. The recommended startup sequence is as follows:

1. Validate that control power is OFF in the enclosure, and that all electrical connections have been made.
2. Turn ON control power with the panel circuit breaker.
3. The POWER LED on the controller will illuminate, while the controller executes an internal self test.
4. After this test is completed (in approximately 10-15 seconds) – the LEDs should be in the following states:
    a. Power LED ON
    b. OK LED ON
    c. Run LED ON
    d. Off-Hook LED Off
    e. Carrier Detect LED Off
5. Connect the Hand Held Unit to the controller's 9-pin RS-232 port. Start the CsHMI utility on the Hand Held, and select the "Install/Setup" File. Select the "Test I/O" screen – this will be used to validate the control components are wired properly and operational.
    a. Verify the operation of the silence pushbutton. If the button being installed used normally closed contacts, set the "Normally Closed?" option to ON using the Hand Held.
    b. Have a co-worker physically activate the floats, and verify that the float inputs turn ON and OFF properly.
    c. Verify operation of the Alarm Buzzer by forcing it ON then OFF again.
    d. Verify operation of the Alarm Light by forcing it ON then OFF again.
    e. Verify operation of the Pump by forcing it ON. This may not be possible if there is no material in the tank.
    f. IF there is material in the tank such that the pump can operate normally, then take the extra step to adjust the Pump Current Reading. Prior to turning the pump on, put an "Amp Clamp" around the Hot (Line) wire controlling the pump. Use the Hand Held to turn on the pump. Note the ampere reading on the "Amp Clamp", and compare it to the "Pump Current" value displayed on the Hand Held. If necessary, modify the "Current Adjust" value with the Hand Held so that the "Pump Current" displayed reasonably matches the measured reading on the Amp Clamp. The default "Current Adjust" value is 1.00. If the Pump Current displayed is too low, the Current Adjust value should be increased. If the Pump Current diplayed is too high, the Current Adjust value should be decreased. Keep in mind the resolution of the Pump Current reading is about 0.11A, and the accuracy is about +/- 0.33A.
6. Test the controller's ability to communicate with the host by forcing the controller to place a telephone call. This will verify the integrity of the telephone connections, and also provide the controller with its operating parameters (call in interval and time, max pump ON time, max pump retries, etc.) as well as synchronizing its clock with the host computer.
    a. Press and Hold the "Silence" pushbutton.
    b. After 5-10 seconds, the "Off Hook" LED will illuminate – indicating the controller is initiating the telephone call. Release the Silence pushbutton.
    c. After approximately 30-60 seconds, the "Carrier Detect" LED will illuminate. This indicates a successful connection has been made between the controller and the host.
    d. The Carrier Detect LED will stay illuminated for anywhere between 5 seconds and 5 minutes, depending on the amount of data that is being transferred between the host and the controller. Approximate call times are as follows:
        i. Controller not yet programmed in host – 5 seconds.

ii. Controller receiving operational parameters and reporting operational data – 15 seconds.
iii. Controller receiving complete new operational program – several minutes. This is a rare case.

7. After what appears to be a successful phone call, restart the CsHMI Hand Held utility, and run the Install/Setup file again. Starting with the "Unit Info" screen, cycle through the screens and verify that the controllers clock has been synchronized with the host and that the operational parameters have been set.
8. As a final check, physically activate the pump float (middle float) for the stabilization period, and verify that the pump turns on automatically. Then physically de-activate the pump float and verify that the pump turns back off automatically (after the stabilization time).
9. The Controller startup procedure is now complete.

1.7 Troubleshooting the Controller

The best indication of the overall status of the controller comes from interpreting the LEDs

Condition – Power, RUN, and OK are ON and solid.

What it Means. The controller is operating normally.

Condition – All the LEDs are off.

What it Means. The controller is not receiving power. Check to see that AC power is being provided to the controller and make sure all connections are solid. If power is present and the connections are okay, the controllers internal power supply may have failed, and the controller will need to be replaced.

Condition – the Power and Run LEDs are ON, but the OK LED is off.

What It Means – the controller detected an internal problem either during power up, or while executing. This could be a minor problem caused by a disturbance, or an indication of a more serious issue. Power cycle the controller and see if the LED returns to normal. If not, use the Cscape tool on the Hand Held to view the controller's Diagnostic Information. This will enunciate the nature of the problem. If the problem remains after several power cycles of the controller, contact Horner APG Technical support for advice on correcting the issue, or replace the controller.

Condition – The Power and OK LEDs are ON, but the RUN LED is off.

What it Means. The controller is not in RUN mode. Use the Cscape utility on the Hand Held to place the controller back in Run mode.

Condition – The Power and OK LEDs are ON, but the Run LED is flashing slowly.

What it Means. If the LED is blinking slowly, the controller is in "Do I/O" mode, which is a diagnostic test mode. Use the Cscape utility on the Hand Held to place the controller back in Run mode.

Condition – The Power and OK LEDs are ON, but the Run LED is flashing quickly.

What it means - If the Run LED is blinking quickly, the controller is executing its backup "Safe Mode" program. Use the Cscape utility on the Hand Held to download a new copy of its primary control program. After the download is complete, all three LEDs on the controller should become solid. Now power cycle the controller to verify that the program is maintained through a loss of power. If the three LEDs come back solid, the controller's memory is operational. If a normal startup is not executed, the controller may have a problem in its battery or memory circuitry and would need to be replaced. The most likely cause of this memory damage is a significant electrical disturbance.

1.8 Controller Operational Functions

1.8.1 Control & Alarms

Section 1.3 summarized some of the functions performed by the controller. This section provides additional detail of the control methodology used by the controllers.

Float Monitoring - Control. As material approaches a float's preset level, it may take several seconds for the float to stabilize to ON or OFF. The controller uses a variable timer to stabilize the float input. The variable stabilization time is set from the host. By stabilizing the float input, the controller adds hysteresis to the pump control (preventing it from needlessly cycling) and also the high and low alarm points.

Furthermore, the controller examines the status of all three floats simultaneously. The controller is programmed to ignore a float if it is contradicted by the other two floats. This allows the system to operate normally despite the fact that one of the floats may be malfunctioning. In this scenario, the host will show the float problem after the next telephone call.

Float Monitoring – Alarms. In addition to utilizing the floats for pump control, the controller also monitors the floats for alarm purposes.

If the floats indicate that the level is below the low float, a *"Low Level Alarm"* is declared. If the floats indicate that the level is above the high float, a *"High Level Alarm"* is declared. If the level remains at or above the high float for an excessive amount of time, a *"High Float Did Not Reset"* alarm is declared.

Pump Control – Run time parameters. The controller uses very flexible and sophisticated logic in the control of the pump.

While running the pump, the ON cycle is timed by the controller. If the ON time exceeds the maximum allowable time, the pump is stopped. The maximum ON time is set from the host.

In addition to timing the ON cycles, the OFF cycles are monitored as well. Once a pump turns off, it is disabled from starting again until the OFF preset (rest time) is reached. The minimum OFF time is set from the host.

To prevent a pump from overcycling, the controller prevents the pump from running more than "X" times in "Y" minutes. Both the number of cycles (X) and the measurement time (Y) are set from the host.

Pump Control – Diagnostics. The controller has sophisticated diagnostic capabilities, due to the fact that it features a built-in current (amperage) sensor. It diagnoses a variety of pump alarm conditions.

When starting the pump, the controller validates that a minimum amount of current (>1A) is drawn. If the current does not reach that level, a "*Pump Did Not Start*" alarm is declared.

While running the pump, the controller monitors the steady-state current draw. If the amperage is consistently lower than expected (<9A), a *"Pump Starving/Low-Current"* alarm is declared.

In addition to low-current conditions, the controller also checks for over-current conditions. If the amperage exceeds a setpoint of X amperes over Y seconds, a *"Pump High Current"* alarm is declared. This could indicate that the pump is failing or about to fail. Both the maximum setpoint (X) and overcurrent time (Y) are set by the host.

If at any time the controller detects significant amount of current draw (>1A) when the pump is not called for, a *"Pump Stuck On / Pump Did Not Turn Off"* alarm is declared.

1.8.2 Statistics – Data Kept "Since Last Call"

In addition to its control capabilities, the controller performs extensive data logging functions as well. One of the data logging functions tracks maximum values "since last call" for several statistics.

Number of Pump Cycles. The aggregate number of ON/OFF control cycles performed since the controller last reported its data.

Longest Pump Cycle. The longest pump cycle (in minutes) since the controller last reported its data.

Pump Amps (Max). The highest steady-state amperage reading achieved since the controller last reported its data.

1.8.3 Statistics –Periodic and Historical Data

Another of the data logging functions tracks operational values over the past 24 hours, 7 days, and cumulative. The following parameters are kept in the controller's memory.

Number of High Level Alarms. This is measured in occurances.
Number of Low Level Alarms. This is measured in occurances.
Longest Pump Cycle. This is measured in minutes.
Number of Pump Cycles. This is measured in occurances.
Largest Pump Motor Amperage Value. This is measured in Amperes.
Total Pump Run Time. This is measured in minutes (for the last 24 hours and 7 days) and hours (for the cumulative).

1.9 Host Operation

The NJUN host application consists of two main components. A communications program (CsOPCSrv – *Call Center Software*) runs in the background and handles all host/controller communications. The Call Center features two primary data mechanisms – a SQL database and an OPC client/server. All data to be polled from the controllers is stored in an SQL database. All data to be written to the controllers is retrieved from an SQL database. The OPC interface provides a convenient, real-time method for the NJUN SCADA program – which is the second main component to the NJUN host application.

The NJUN SCADA program was developed using CIMPLICITY, a leading SCADA development package. The NJUN SCADA program provides three important functions. First, it monitors controllers in real-time (as they call in) logging and managing alarms. Second, it displays the historical data for each of the managed controllers. Third, it provides a mechanism for the controller setpoint data (pump settings, etc.) to be edited by the operator.

1.9.1 Central Control Screen

Remote Reports. This is the selection that allows the pre-configured reports to be selected and run.

Remote Listing. This selection provides the listing of all controllers currently being managed.

Call Log. This selection provides a link to the Call Log. The call log shows a record of each of the last 18 calls received by the host.

Remote Mapped. This selection provides a link to an area where maps of the controller locations can be accessed, if desired.

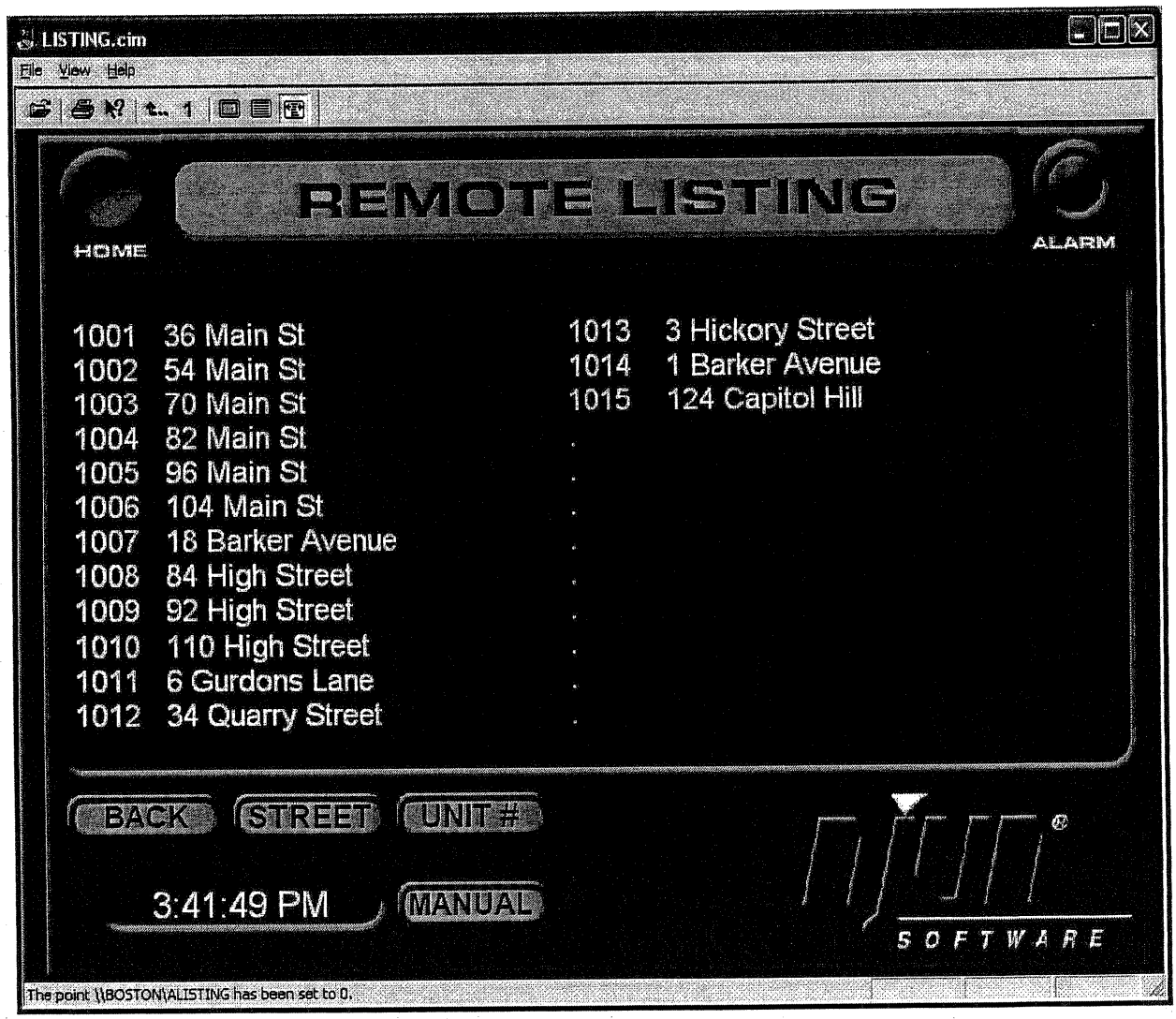
Paging Setup. Through this selection, the paging settings are configured. The primary means of "paging" for alarm data is through the use of e-mails and text messages.

New Setup. This selection allows a new controller to be added to the listing of managed controllers.

Remote Alarms This selection allows the operator to access the alarm listing – showing alarms that are active (red), acknowledged (yellow), and returned to normal (green).

1.9.2 Remote Listing Screen

From this screen, the controllers being managed are listed. To learn additional details on a controller (drill down), click on the controller – which is represented by its address.

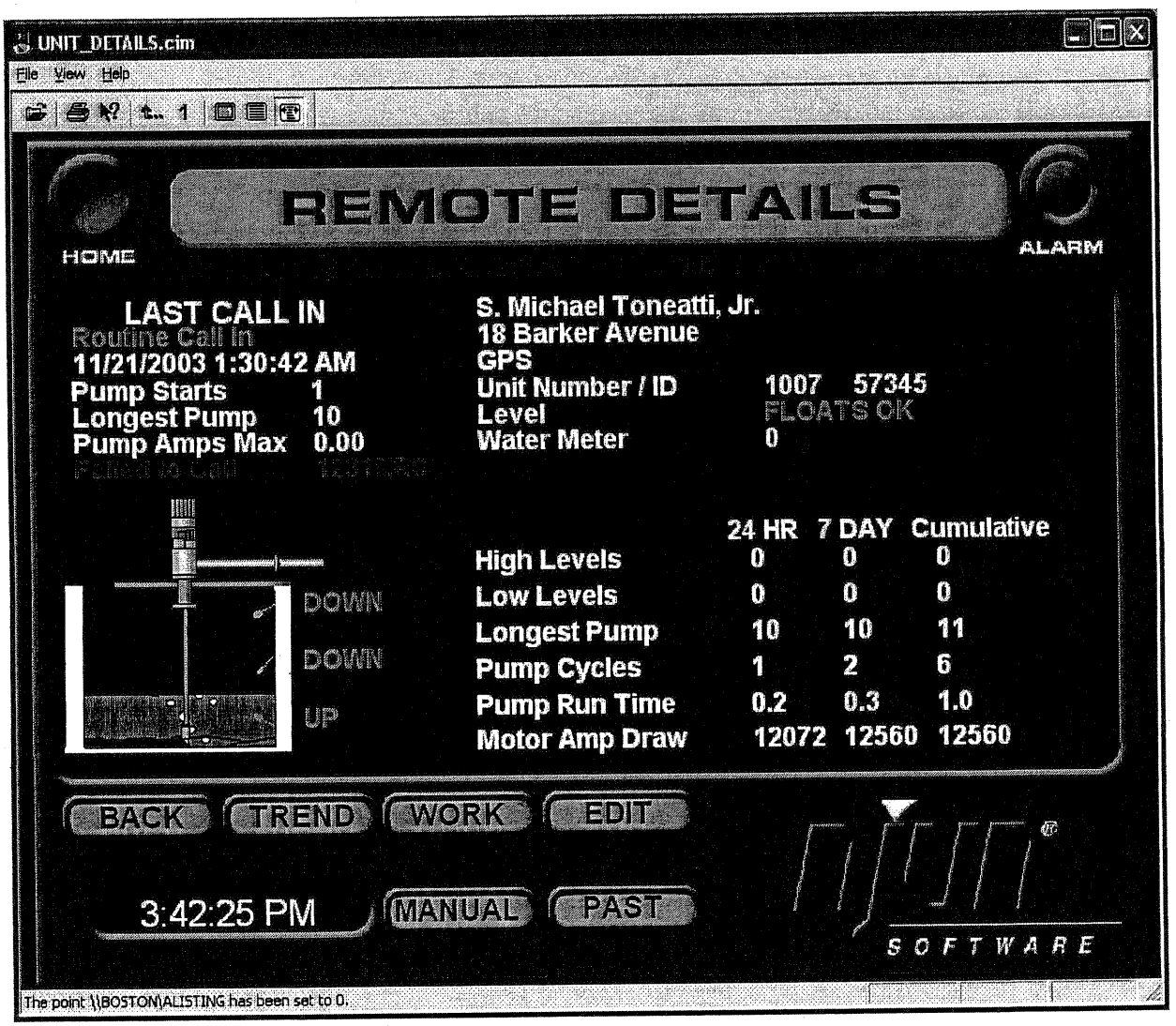


1.9.3 Remote Details Screen

From the Remote Details screen, all the information reported by the controller the last time it called in are displayed. The data is summarized as follows:
Reason and Time of the Call. The reason the controller called in is shown in the upper left part of the screen. If the call was routine, "Routine Call In" will be displayed in green. If an alarm condition generated the call, the Alarm will be summarized in that area – shown in a red font. The time and date of the call is also shown in the upper left part of the screen.

Operational Data Since Last Call. The number of pump starts, the longest pump (in minutes), and the maximum pump current (in amps) are shown beneath the call date and time.

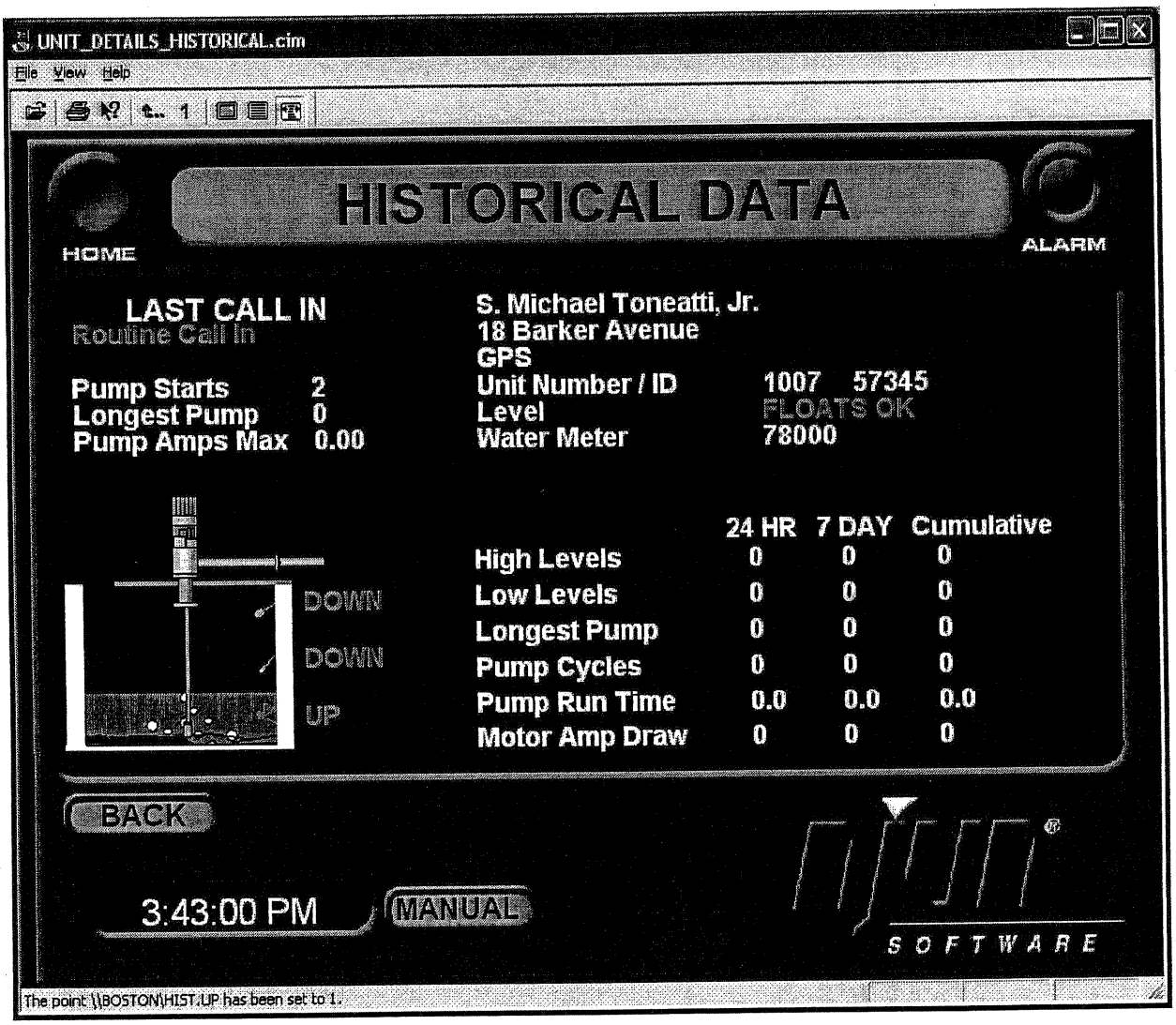
Controller Failed to Call. If the controller is late for its latest scheduled call, "Failed to Call" in a red font, along with the number of overdue hours is displayed. If the controller is not overdue, no message is displayed in that area.



Float Status. The state of the each of the floats at the time of the call is shown in the lower left, next to the graphic of the tank/pump. If the float is believed to be normal (not contradicted by the other floats), its status is shown in a green font. If the float is believed to be malfunctioning (contradicted by the other floats), its status is shown in a red font.

Historical Statistics. In the lower right part of the screen, the historical controller data is listed. Historical data is listed by statistic, with the value for the last 24 hours, 7 days, and Cumulative. The statistics listed are High Levels, Low Levels, Longest Pump (in minutes), Pump Cycles, Pump Run Time (in minutes for 24hr & 7 day, and hours for cumulative), and Pump Motor Amp Draw (in milliAmperes).

Past Button. To access snapshots of past call screens, the operator can press the "Past" button. Pressing this button brings up the data reported the previous time the controller called in. Pressing the blue UP and DOWN arrows allow the previous calls to be scanned.

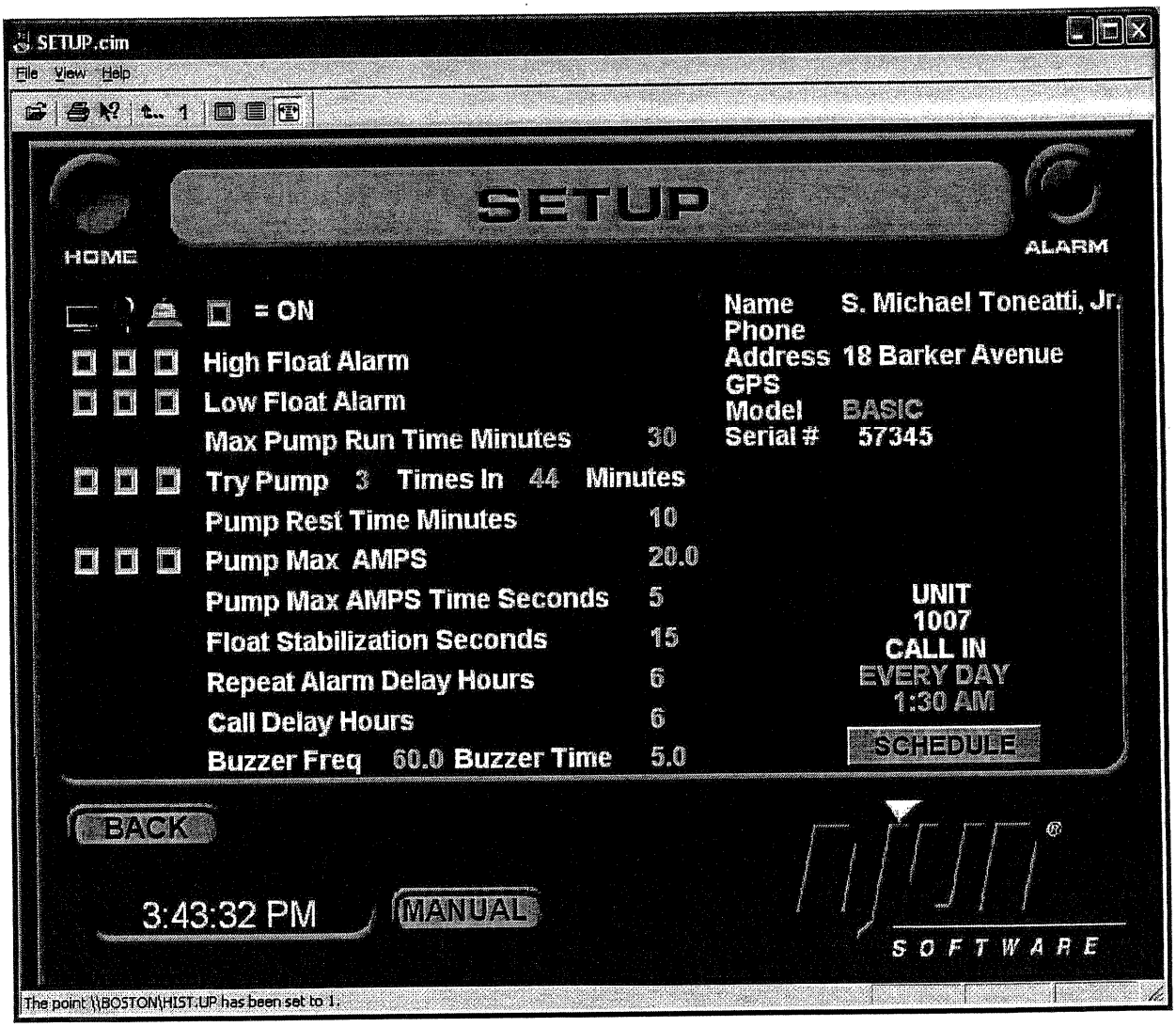


Edit Button. To examine the setpoints for each controller, and possibly make adjustments, the operator may press the "Edit" button. Pressing the edit button pulls up the Setup Screen, which shows all the parameters which can be adjusted from the host.

Alarm Parameters. Listed down the screen are various controller alarm conditions, and the parameter/setpoints which determine an alarm has occurred. These parameters can be adjusted so that the condition that triggers a Pump Max alarm, for instance, can be customized per controller. The Alarm conditions listed are High Float Alarm, Low Float Alarm, Pump Trys, and Pump Max Amps.

Enable Selection Boxes. To the left side of each configurable alarm condition, are a series of radio buttons or "selection boxes". These selection boxes are organized in three columns. The first column (under the computer screen icon) configures whether an alarm condition will cause the host to be called. The second column (under the alarm light bulb icon) configures whether an alarm condition will cause the alarm light to turn on. The third column (under the alarm bell icon) configures whether an alarm condition will cause the alarm buzzer to sound.

Operational Parameters. Intermixed with the configurable alarm parameters are operational parameters. These are operational setpoints which don't necessarily correlate to an alarm condition. The adjustable operational parameters include the Max Pump Run Time (in minutes), Float Stabilization Time (in seconds), Repeat Alarm Delay, Call Delay, Buzzer Frequency, and Buzzer Time. "Repeat Alarm Delay" is defined as the amount of time that a controller will let pass before another alarm of identical type will be reported. "Call Delay" is defined as the amount of time that the controller will let pass before attempting another phone call, if a phone call is unsuccessfully completed. "Buzzer Frequency" is defined as how often the buzzer will sound (in seconds). "Buzzer Time" is the length of time (in seconds) that the buzzer will sound.



Work Button (from remote details screen). If the operator presses the "Work" button from the Remote Details screen, he can view the Maintenance Screen for each controller. The Maintenance Screen shows

the work performed for each controller by time and date. The operator can add to the maintenance record by pressing the button for the task performed at the site while viewing this screen.

Khambaty

STEP SEWERS: FACT VS. MYTH

MYTH : The report of the Task Force to Evaluate Options for Sewered Portion of North Gloucester Wastewater Management Project, Phase II, showed that conventional sewering was less costly to construct and lest costly to maintain than a STEP system, but yet the STEP system was chosen to be constructed.

FACT: From the point of view of the estimated costs to the City and to North Gloucester homeowners, the final STEP design was estimated to cost less than the conventional sewer design. The final design changes in the STEP system that reduced the costs included; intrinsical connections, slip lining, privatizing, trench depths 2'-6' vs. 6'-15' thus allowing for less disruption and faster construction.

MYTH: The design changes to the STEP system which were to result in a cost savings actually resulted in a cost increase.

FACT: The City believes the STEP system **will** cost less. The first STEP contract (94-1) did not realize all possible savings because contractors who had bid twice already on rejected North Gloucester proposals were reluctant to bid a third time. Now that they know the City is committed to STEP, we should see more competition and realize expected savings in the next two STEP contracts (contracts 94-2 and 94-3). Reduced construction management costs will help, too.

MYTH: The location of the septic tanks required for the STEP system has not been defined in the contract that been awarded to P. Gioioso. P. Gioioso is to work with the individual homeowner to determine the best location for the septic tank. Any changes to the contract drawings will result in Change Orders to the contractor and increased cost to the project.

FACT: The location of the STEP tanks are already shown on the plan. They have been sited by experienced engineers. The locations may change. The 94-1 contract requires the contractor to do test pits. City Staff will meet with each homeowner to site the tanks for the least disruption and cost.

Any changes in location will be based on unit pricing currently in place and therefore change orders will **not** be required.

MYTH: The septic tanks required for the STEP system may be required to be installed within 10 feet of a home or within 10 feet of the property line, both of which will require a variance from the Board of Health.

FACT: The City believes that Title V standards do not apply to STEP tanks. Therefore, variances would not be needed. We await confirmation from the State.

MYTH: The septic tanks required for the STEP system are relatively large (9'x6'x5') which will require a large excavation on every homeowner's property to install the tank.

FACT:The tank size is similar to a 1500 gallon concrete septic tank required under Title V system designs (Rotondo ST 1500,10'6"x 5'8"x 5'4").

MYTH:The suppliers for the tank, mechanical, and electrical systems which are what make the STEP system work are not required to provide a performance and payment bond for their work. A performance and payment bond is typically required on all City projects to insure performance of the contract and payment of all bills associated with the project.

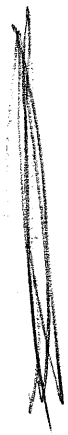
FACT: The performance of the system will be checked prior to acceptance and prior to payment. The tanks will be hydrostatically tested (water) prior to shipping to the lots and again tested in the ground. The pump chamber and accessories will be tested in the ground. Performance and payment bonds are therefore not necessary, which avoids passing along more needless costs to homeowners.

MYTH: In Phase II and III of the STEP project, the individual homeowner will have to hire a contractor to furnish and install tank, electrical, and mechanical equipment and pay for the work with no benefit of payment over a number of years as allowed by a betterment charge. The cost of this work is between $7,000 and $10,000.

FACT: Equipment acquisitions and installation costs for homeowners in the Contract 94-2 and 94-3 areas should average $6,000. The City will train , license and inspect all contractors doing this work for homeowners.

MYTH: Problems are inherent with any mechanical and electrical system, i.e. pump failure, clogging of screens, and power outages. In all instances service is required to get the system running again. Until repairs are complete the system remains inoperable.

FACT: The tanks have 200 gallons of storage above the high water level and if the pump has just discharged the capacity is 300 gallons. With conservative use of water the system could easily last one day and as many as three days. The service records in Glide, Oregon, and Camus, Washington for STEP systems are as follows: 1993 calendar year Glide, Oregon had 132 Service Calls. The system in Glide includes 600 STEP systems and 90 grinder pumps. 50% of the service calls were for STEP systems of which 10% or 6-7 service calls were a major problem which included blockage, pump failure, etc. These major problems were corrected within 30-6- minutes. In Camas, Washington the system consists of 500 STEP systems. In calendar year 1993, 52 service calls were logged with again 10% or 5 calls a major problem. Again down time was between 30-60 minutes. The main problems with the systems in both cities has been not with the equipment but with the homeowners putting inappropriate items in the toilets i.e. diapers etc.



MYTH: The septic tanks which are to installed are to be constructed of fiberglass which is prone to cracking and leaking.

FACT: Original fiber glass tanks had some problems but design has been refined to eliminate cracking and leaking. Concrete tanks tend to **not** be waterproof and with the inflow and infiltration pumps could be overworked. Fiberglass tanks are easier to install,too.

PROPERTY OWNER COST ASSISTANCE OPTIONS

STATUTORY APPORTIONMENT

Every taxpayer that is assessed a betterment has the option of paying it immediately or apportioning it over a period of up to 20 years. By paying the betterment up front, the taxpayer does not incur any financing cost. Furthermore, the property is not encumbered, making a future sale of the property or potential refinancing easier.

If taxpayers do not want to, or cannot, pay the betterment in one lump sum, they may elect to spread the payments over a period of up to 20 years by simply completing a short form and returning it to the Board of Assessors. This may ease the cash burden of the betterment, and taxpayers can take advantage of the low financing rates that the City can obtain. It is important to note, however, that the City places a lien on the property for the betterment amount, and that many financial institutions will not refinance the property with that lien in place. Furthermore, if a taxpayer wants to sell the property, the buyer's lender may not finance the purchase with that lien in place.

MORTGAGE FINANCING

Another method of minimizing periodic payments is to finance the betterment not by apportioning it through the City, but by rolling the balance into a first mortgage. A taxpayer may benefit from doing this because financial institutions generally write mortgages for up to 30 years, thus spreading payments over a longer period than the City can. Secondly, if a taxpayer has a mortgage with a high interest rate, refinancing may actually lower his overall borrowing rate. Payments on a mortgage are monthly, but betterment payments through the City are quarterly. Monthly payments will be smaller and may possibly be easier to manage. Finally, rolling the betterment into a mortgage will result in a single lien for the mortgage, rather than one for the mortgage and one for the apportioned betterment.

Some taxpayers may not qualify for such mortgages, especially if they already have low equity in their property, they are unemployed, or they have poor credit histories. If interest rates have risen, they may not want to refinance and give up a below market rate.

HOME EQUITY LOANS

For those taxpayers interested in financing the betterment privately, but not wishing to give up their current mortgage, a home equity loan or line of credit may be an attractive option. Such loans may offer flexible repayment terms. Some

even allow payments of interest only. They also are usually based on short-term interest rates, which are typically, although not always, lower than long-term rates.

These loans, however, most often carry variable interest rates. Because of this, taxpayers will want to balance the flexibility they offer with the potential of increasing interest rates and higher future payments.

REVERSE MORTGAGES

For taxpayers that are retired and have relatively low, fixed incomes, reverse mortgages may be a viable option. Reverse mortgages may allow a retired taxpayer to tap the equity in their property privately, and defer repayment until sale or transfer of the property. Potential mortgagees may want to consider that their equity in the property can be eroded if the amount owed grows faster than the property appreciates. Many people will find this risk unacceptable. Not all lending institutions offer reverse mortgages.

CONNECTION ASSISTANCE - CITY CDBG DEPT

Low and moderate income taxpayers may qualify for sewer connection assistance through Gloucester's Grants Office in the Community Development Department. This assistance is not for betterments per se, but will help finance costs associated with connecting the property to the City's sewer. These costs are normally paid by the property owner directly to a private contractor. Income qualifications are fairly liberal. A household with income greater than Gloucester's median family income may even qualify for assistance.

SENIOR DEFERRAL

Property owners who are 65 years or older, reside in the subject property, and meet certain household income restrictions, may defer their entire betterment until they sell or transfer their property. The deferral carries the same annual interest rate applicable to apportionment. Taxpayers should understand that by electing a deferral, they will reduce the amount that they pass on to their heirs.

VACANT LAND DEFERRAL

Property owners that are assessed a betterment on vacant land that is buildable or became buildable because of the sewer construction are eligible to defer payment of their betterment until a structure is built. Interest only will be billed annually at the rate of 4%. If a property owner elects this deferral, the entire betterment will be due and payable within ninety days of the completion of the structure, and further apportionment will not be allowed.

PROPERTY OWNER COST ASSISTANCE OPTIONS

INCOME TAX IMPLICATIONS

Taxpayers should understand that even though sewer betterments appear on real estate tax bills, they are not tax deductible for federal income tax purposes, although they can be added to the basis of the property (please see IRS Publication 551 *Basis of Assets*, or go to www.irs.gov). Interest on apportioned or deferred amounts is deductible, however.

Betterment payments may have a state income tax advantage. The state has a "circuit breaker" program for taxpayers 65 and older that provides a credit for certain taxpayers. Betterment payments qualify as counting toward the circuit breaker formula (see attached information).

There is also a state income tax credit of up to 45% of the actual cost, to a maximum of $15,000, for taxpayers that repair or replace an officially failed septic system. Taxpayers who replace a system by hooking up to sewer pursuant to a federal or state mandate (consent decree, court order, DEP administrative consent order, etc.) do not need an inspection resulting in failure to apply the betterment to the potential credit. For further information, contact the Massachusetts Department of Revenue, or visit www.state.ma.us/dor.